ENGINEERING NEWS-RECORD

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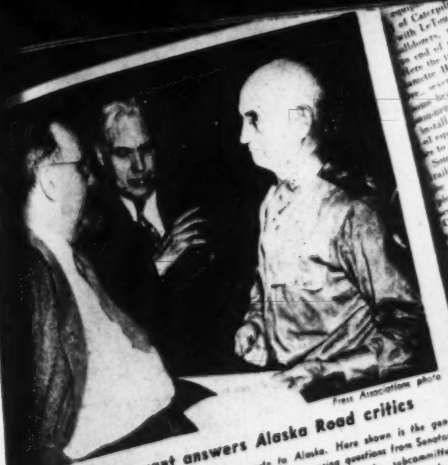


Press Associations photo

General Sturdevant answers Alaska Road critics

Brig. Gen. Clarence L. Sturdevant, Assistant Chief of Engineers, on June 1 told a subcommittee of the Senate Foreign Relations Committee that the route along which the Alaska highway now is being built was chosen in preference to the route favored by the Alaska Defense Commission because it would serve as a link between airfields along the strategic air route to Alaska. Here shown is the general (right) answering questions from Senators Clark and Shipstead of the subcommittee. Apparently the charge of Senator Langer of North Dakota—who sponsored the investigation—that the location chosen is "an engineering monstrosity."

Bulldozers follow the gangs doing the clearing to remove the topsoil and do preliminary grading.

Building the Alaska Highway

Construction work on the pioneer road . . . at a rate that makes it now probable . . . engineers troops and construction equipment . . . that the road will be open to traffic for . . . were taken in other winter trail- . . . its entire length of about 1,670 miles by . . . to Fort Nelson before the spring breakup . . . December of this year. Work on . . . (other troops began working out of Dawson Creek, the railhead of British Co- . . . road was begun late last winter when . . . lumbia from which the road starts, and from Whitehorse in Yukon Territory. . . . The road now being built by the Corps . . . of Engineers is a pioneer road for a . . . permanent highway to be built by the . . . Public Roads Administration under an . . . agreement signed with Canada in March . . . 1938 (ENR March 24, p. 450). Cuts and fills . . . are made enough for the permanent . . . road being given a high crown . . . and ditches are being . . . where available funds . . . clearing the . . . have been . . .

Tough going. Three tractors struggle with a sled on the banks of the Peace River.

Route chosen for highway to Alaska

Due to war conditions, a route beginning farther inland than either of those originally favored by the Alaskan International Highway Commission has been selected for the Alaska Highway (ENR March 12, p. 389 and March 26, p. 459). Within the province of British Columbia, the new road will lie to the east of both routes "A" and "B", which were favored by the commission before war was declared. This was done for two reasons, first, to connect the air fields that have been built along the air route to Alaska, and second, to remove as much of the route as possible beyond the range of easy air attack from the coast.

The new road will start from Fort St. John on the Peace River in British Columbia, which has road connections with Edmonton, and will stay east of the mountains until it reaches the Yukon border, from where it will cross through the mountains to Whitehorse. From Whitehorse it will follow route "A" to Big Delta, from which point there is a road inland into Fairbanks and Circle on the Y[ukon] road to Al[aska].

O'Connor named head of new army command

Col. James A. O'Connor, Corps of Engineers, U. S. Army, who has been in charge of construction of the southern section of the Alaska Highway during the past months has just been named Northwest Division Engineer with headquarters at Portland, Ore. . . . Canada . . . O'Connor . . . Army activities . . . traversed . . . p. 392 this . . . and construction . . . White Pass . . . the base in . . . Skagway. . . . new construction . . . coordinate . . . supply activities . . . always, inland . . . and pipe lines . . . forces in the . . . supplies peculiar . . . Forces.

Col. O'Connor was born in Bay . . . Mich., July 19, 1885, graduated . . . U. S. Military Academy and . . . commissioned a second lieutenant of . . . in June, 1907. Before World . . . he saw service in Cuba and . . . In 1918 he went to France in . . . of the 11th Engineers, later . . . command of the 303rd Engineers, graduate of the Engineer School . . . command and General Staff School . . . Army War College. He served . . .

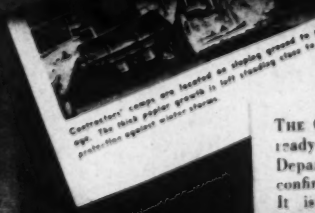
Lytle, Green get initial Alaska Highway contracts

Attacking what . . . and . . .

Railway to supplement Alaska road considered

The Army is considering construction of a railroad to supplement the Alaska highway, as a means of bolstering payload capacities of trucks that will be using the road next winter.

Testifying before a House committee last week, Lt. Gen. Brehon B. Somervell, . . . the Lytle-Green . . . it is understood . . . covering only manu- . . . tors will not do the . . . selves but will ov[er] . . . subcontractors, pick[ed] . . . proval by PRA. The . . . offices in Des Moines . . . up offices in Alaska. O[thers] . . . taken leave from . . . of the . . .



Contractors' camps are located on sloping ground to provide adequate . . . age. The thick paper growth is left standing close to the camp to give . . . protection against winter storms.

THE Canadian-Alaskan Highway will be ready for service about Dec. 1 the War Department has officially announced, confirming recent unofficial predictions. It is expected that traffic will move throughout the winter until the . . .

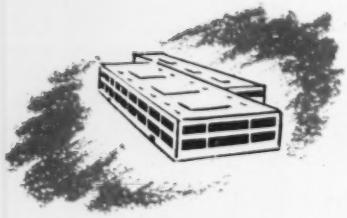
ENGINEERING NEWS-RECORD

Goes to Alaska

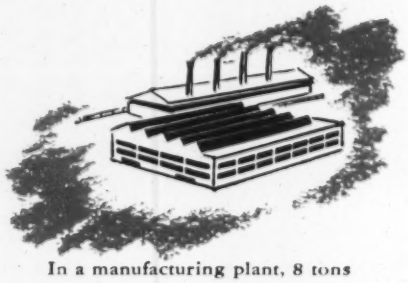
Beginning in this issue, an on-the-spot account of construction operations on our most strategic highway
—by H. W. Richardson, Western Editor.

SAVED --with Load-center Power Distribution

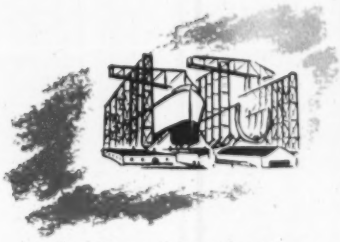
Tons of Copper and Steel
Weeks of Valuable Time



In an ordnance plant, 5 tons



In a manufacturing plant, 8 tons



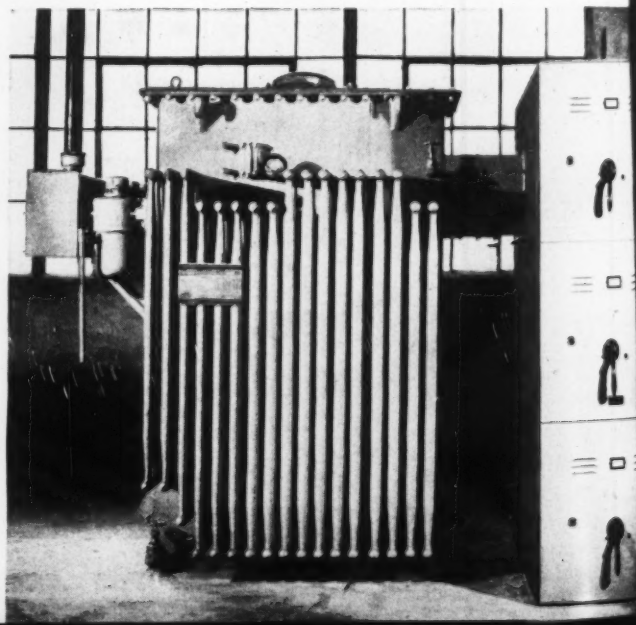
In a large shipyard, 145 tons

ON THESE three projects alone, load-center electric distribution systems, with their copper-stingy short secondaries, made possible the conservation of vast quantities of vital copper and steel. And the jobs were completed in *one to six months' less time* than would have been required if old-style systems had been used.

Using *standard*, "packaged" equipment, a load-center system presents very few design problems, can be purchased and installed much more easily and quickly, and at *lower* over-all cost. Performance of electric equipment is materially improved by the reduction of voltage drop in the *short* low-voltage feeders. Write for more detailed information. *General Electric Co., Schenectady, N. Y.*

LIGHTING MATERIALS, TOO!

Load-center distribution is especially suitable for fluorescent lighting using General Electric's new Forlamp ballast, which operates within a range from 250 to 280 volts. This new ballast requires only about one-half as much copper, iron and steel, and aluminum as was required for the most economical ballast hook-up heretofore available for operating four 100-watt lamps.



The Navy "E", for Excellence, has been awarded to 92,780 General Electric employees in six plants manufacturing naval equipment.

In the load-center system, power is distributed at relatively high voltage (2.4 to 13.2 kv) to compact unit substations located near the centers of electrical load areas—eliminating the need for long, heavy, low-voltage feeders from a distant substation. These factory-assembled, safety-metal-enclosed units are quickly and easily installed right in working areas without expensive vault construction—thanks to non-inflammable Pyranol.

GENERAL ELECTRIC

902-13-170B

The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • NOVEMBER 12, 1942 • VOLUME 129 • NUMBER 20

Essential occupations listed for construction industry

Plans being drafted for application of "Manning Tables" to draft deferment of construction workers considered essential. Clarification of whole problem seen likely.

A list of fifty essential occupations in the construction industry was released last week by the Selective Service System in one of two moves that point toward clarification of the draft deferment status of construction workers.

The second move was the approval by the War Manpower Commission of a scheme—the manning table—for regularizing the withdrawal into the armed forces of men from any firm or plant.

The list of essential occupations—more than two months in preparation (*ENR*, Sept. 10, p. 335)—was issued to guide local draft boards in passing upon requests for occupational deferments. In order to merit occupational deferment, a man must hold an essential job in an essential industry. Last July (*ENR*, July 23, p. 129) construction was declared to be an essential industry in a memorandum that covered "highway and street construction, marine construction; and construction of approved industrial plants, houses, hospitals, and military projects and repair of such facilities; and services necessary to complete such construction."

Deferment List

The list of essential construction industry men, as approved last week by Selective Service, includes the following:

Accountant, cost; barge captain; blacksmith (all around); blaster (all around); boilermaker; bricklayer (all around); cable squeezer (all around); carpenter (all around); compressor engineer, caisson; concrete-paver operator; crane operator, gantry; derrick-boat captain; derrick-boat operator; diamond driller; diver; dredge captain, dredge mate and dredge leverman; electric elevator installer; electrician (all around).

Engineer, professional and technical; construction superintendent.

Foreman. (This title covers foremen who are engaged in supervisory duties in connection with the construction industry, and who exercise independent judgment and assume extensive responsibility for the work of those they supervise.)

Furnace and stoker installer, repairman; hoisting engineer; lay-out man, sheet metal; lay-out man, structural steel; machinist (all around); man-lock tender; manager, employment and personnel; mechanic, maintenance; mechanic, refrigeration; millwright; painter (all around); pipe and steam fitter (all around); plasterer.

Plumber (all around); power-shovel and crane operator; rigger, construction equipment; sheet metal worker (all around); structural-steel erector; survey party chief.

Tugboat captain, engineer, mate; welder (all around); wharf builder; wire spinner, and yardmaster.

The manning table is a device to schedule occupational deferments for essential workers in a war plant, and to throw the major part of the technical decision

(*Continued on* p. 2)

Sees Alcan road "holed through"

The following telegram from H. W. Richardson, western editor of *Engineering News-Record*, was received on Nov. 4.

WHITEHORSE YT NOV 2

W. G. BOWMAN
EDITOR, ENGINEERING NEWS RECORD
330 WEST 42 ST, NEW YORK

IN A MURKY ARCTIC SNOW STORM AT BEAVERCREEK, TWENTY MILES EAST OF THE ALASKA BOUNDARY IN THE WILDS OF THE YUKON, THE CLIMAX OF BUILDING THE ALCAN HIGHWAY WAS REACHED AT FOUR P. M. SUNDAY OCT. 25, WHEN THE ADVANCE TRACTOR CREWS FROM EAST AND WEST CAME TOGETHER, CLOSING THE LAST GAP IN THE TRIAL ROUTE.
AFTER SEEING TREES FALL AWAY FROM HIM IN WEEKS OF SWAMPING OUT THE ADVANCE CUT, CORPORAL REFINES SIMS JR, NEGRO "CAT SKINNER" OF THE CREW WORKING DOWN FROM ALASKA, FRANTICALLY RETREATED WITH HIS DIESEL BULLDOZER AS TREES AHEAD STARTED FALLING HIS WAY, NOT REALIZING THE MEETING WAS IMMINENT. IN A FEW MOMENTS, THE LEAD BULLDOZER OF THE YUKON CREW BURST THROUGH THE LAST PATCH OF TIMBER AND BRUSH, PILOTED BY PRIVATE ALFRED JUUFKA.
I WAS PRESENT TO TAKE ONLY PICTURES OF THE EVENT. THEN I RETURNED TO ALASKA AND COMPLETED COVERAGE OF PROJECT ON OCT. 27 AS FIRST PERSON TO TRAVEL FULL LENGTH OF ROUTE AND ALL BRANCHES. EVERLASTING CREDIT IS DUE ARMY ENGINEERS AND THEIR TROOPS, PUBLIC ROADS ADMINISTRATION ENGINEERS, AND AMERICAN AND CANADIAN CONTRACTORS FOR COMPLETING 1,670 MILES OF WILDERNESS ROAD IN FOUR MONTHS.

H. W. RICHARDSON

On Nov. 4, the Public Relations Section of the Northwest Service Command released the following news item to the American daily press: (*See p.* 2)

Treated wood manhole cover used in Los Angeles

Officials of Los Angeles county, Cal., have announced the development of pressure-treated wood manhole covers, expected to aid in solving metal-shortage problems.

The cover is made of laminated wood strips, fashioned in either hexagonal or circular shape. Plans call for nailing the 2x4x8 in. laminated strips with four 20-penny nails to each strip, and running at least two ⅜-in. bolts through all members, countersinking both ends. Where nails and bolts are difficult to obtain, wood dowels and waterproof glue can be used.

The hexagonal cover is 37½ in. in overall diameter, and 32½ in. between opposite faces. Faces are 18¾ in. Weight of the metal-bound cover is about 130 lb., the glue and dowel cover weighs slightly less. Lumber requirements total 63.3 bd.-ft. of No. 1 Wolmanized or creosoted Douglas fir.

The frame uses 0.14 cu. yd. of class A concrete. Two ¼-in. reinforcing rods are used in the concrete retainer—one in the upper and one in the lower section—inside the perimeter.

Wear and splintering of the wood is reduced by laying the laminated strips at a 45-deg. angle to the line of traffic, applying a thin coating of bitumuls or emulsified asphalt—covered with dry sand or pea gravel—to the top surface of the wood cover, and keeping the surface of the cover flush with the roadway.

Examining a circular cover are Carl H. Reeves, superintendent of the maintenance department; Alfred Jones, county surveyor and engineer; and Lee L. Page, senior road foreman.

Essential construction occupations listed

(*Cont'd from p.* 1)

as to a man's essentiality onto the War Manpower Commission.

Under the plan, war industries may obtain permission to draw up an inventory of their employees, showing the liability to military service of each, and the time required for training. On this basis, a time table of withdrawals of men can be formulated. Then the manning table is submitted to the Manpower Commission and to the state director of Selective Service.

If the table is approved by both these agencies it will be given a serial number to which the employer may refer in submitting applications for occupational deferment to local draft boards. The local boards are not required to accept the approved manning table as conclusive evidence of the essentiality of the worker in question, but ordinarily they will do so.

Difficulties Seen

There are, obviously, difficulties in applying this scheme to construction, since the manpower needs of a project vary greatly from time to time.

It will be fairly simple for a contractor to draw a manning table for his key employees whom he keeps with him permanently, but it is not yet clear how the project manning tables could usefully be drawn up.

The War Manpower Commission is now working with the Associated General Contractors to figure out how this can be done. One possibility being explored is the preparation of tables on a regional basis, so that such a table would show the entire need for workers on all construction projects for the region.

Richardson sees Alcan road "holed through"

(*Continued from p.* 1)

"WHITEHORSE, Y. T., Nov. 1—The first man to cover the entire length of the Alcan Highway, Harold W. Richardson of Chicago, Western Editor of the *Engineering News-Record*, arrived in Whitehorse with the comment that the road is 'the greatest construction feat since the Panama Canal.'

"Traveling by jeep, by command car, by truck and on foot, Mr. Richardson has covered the highway from Dawson Creek, British Columbia, to Fairbanks, Alaska—1,630 miles away. Where the road was not quite finished, he slung his belongings on his back and plodded along on foot.

"He pronounced the route ready for the opening ceremony Nov. 20, but not yet 'the finished standard highway which we find in the United States.'

"Mr. Richardson, whose home is in Chicago, made the long jaunt at the invitation of Brig. Gen. James A. O'Connor, commanding the Northwest Service Command."

Richardson was sent to Edmonton, Alberta, on Oct. 1, to cover construction of the new highway. The first sections of his diary to be approved by the War Department for publication are given on p. 4 of this issue.

• • •

Superhighway seen as post-war New York task

A modern four-lane divided highway expected to surpass any existing highway in length of uninterrupted travel possible is slated as a post-war project in New York State.

Beginning at the New Jersey line near Suffern, N. Y., the proposed highway will pass up the west side of the Hudson River to a point near Albany. Thence it will swing westward to pass near Schenectady, Utica, Syracuse, Rochester, Buffalo and along the shore of Lake Erie to the Pennsylvania line, a total distance of 468 miles.

The road will have two traffic lanes in each direction, separated by a mall. The road is planned largely on new location, and entrance will be permitted only at selected points. No other railroads or highways will be crossed at grade, and cities will be skirted rather than passed through.

Planning will be done by the Division of Highways of the New York Department of Public Works, and will be financed with state funds and federal highway planning funds provided by the defense highway act of 1941.

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New code clears way for allocation of new, used construction equipment

Codification of WPB rules for sale of new machinery allows action. Agency sets up lists for control of all equipment sales.

The War Production Board this week formally codified its rules for the sale of new construction equipment and opened the way to allocation of used equipment.

Order L-192, in specifying who may and may not buy new equipment, actually has little immediate affect because it is already nearly impossible for anyone except government agencies to buy new equipment, and this will become even more so in the future. This somewhat unrealistic effect arises from the fact the order has been some months in preparation (*ENR*, Aug. 13, p. 201, and previous.)

More significant is the provision for allocation of used equipment. The order divides construction equipment into two groups—list "A," comprising the major types of equipment, shovels, graders, etc.; and list "B," made up mostly of accessory items, buckets, scraper blades, drill steels, etc., and most types of concrete equipment except batching plants. Anyone selling a piece of used equipment of the list "A" type is required to report the fact to WPB, thirty days before the sale, on form WPB-1159. Thereafter, WPB can tell him to sell it to someone else instead, if that seems desirable.

Power important in future

It is not expected that this power to allocate sales of used equipment will be much exercised in the next few months, but it will unquestionably become important in the future.

For controlling sales of new equipment, the order sets up a third list, "C," of the more critical types on lists "A" and "B." Technically, anyone may place an order for list "B" equipment unless it is also on list "C." To place an order for list "A" equipment, not on list "C," an application must be made to the nearest regional office of WPB on form PD-556.

List "C" equipment from list "A" may be bought only by government war agencies, while list "C" equipment from list "B" may be bought both by such agencies and by their contractors.

A further control over sales of new equipment is established by requiring that manufacturers of equipment submit to WPB each month their production and delivery schedules.

For sales of repair parts for use on projects of the war agencies, the order provides that the repair part purchase shall carry the same priority rating as the project on which the parts are to be used. Except with specific WPB approval, it is forbidden to buy repair parts in any quarter-year costing more than 5 percent of the cost of the equipment to be repaired.

• • •

Open "most expensive" Idaho highway

The west entrance to Wallace, Idaho, from U. S. Highway 10, called "the most expensive mile of highway ever built in Idaho" was opened to traffic recently.

Originally scheduled to cost $190,000, a series of difficulties that included high water and floods that washed out temporary bridges, dirt slide, and a labor shortage, brought the cost of the work close to $250,000.

The road is a four-lane highway.

Traffic decline slows on nation's highways

The downward trend in traffic on rural highways in the gasoline-rationed area ended abruptly in September, but traffic nevertheless was 43 percent less than a year ago, the Public Roads Administration reported last week. The 43 percent decline in September followed a 49 percent drop in August (*ENR*, Oct. 15, p. 522, and previous), which is in line with decreases in traffic noted in June and July.

Decrease in traffic in the unrationed area in September was 21 percent, indicating a total national decrease in highway traffic of 29 percent as compared with September, 1941.

PRA officials pointed out that continuous decreases in traffic during the summer were due to the progressive elimination of pleasure driving, but said that with the coming of fall, a greater percentage of travel is for business purposes. Reductions under the totals of a year ago will, therefore, not be so marked during the coming months.

Rail puller speeds salvage program

Unused street car rails are being yanked out of the streets with a minimum damage to paving under a system used in salvage operations at Birmingham, Ala.

A diesel power shovel furnishes the motive power, exerting up to a 30 ton pull. An A-frame with block and tackle is attached to the end of the boom, and two I-beams are placed parallel with the rail to be pulled, about 9 in. therefrom on each side. The A-frame presses the I-beams securely against the paving, which is sheared off as the rail is pulled up. A pull is made on the rail about every 8 or 10 ft. Since the rails are welded together, they are cut off in 25 to 30 ft. lengths, suitable for handling.

Some 4,050 tons of rail are being salvaged in Birmingham, with the puller operating at the rate of more than a half mile per day.

General contractor is the Coosa Construction Corp., of Gadsden, Ala., and subcontractor is the Victory Rail Puller Corp., of Philadelphia, Pa. The work is financed by the Federal Reserve Corp., RFC subsidiary.

Richardson in Alaska on News-Record assignment

The complete story on the Alcan Highway, that engineers and construction men have been waiting for, will be published in *Engineering News-Record* sometime in December, or earlier if possible. It will be written by Harold W. Richardson. *News Record's* Western Editor who is now on an assignment to cover the entire 1,600 miles of the road, which no single individual, not even an Army engineer has yet done, except by airplane. Richardson is going to do it by jeep, truck or any other available means of land transportation.

Although a considerable volume of wordage and pictures on the Alcan Highway has already been published (some in this journal), all of it has been superficial from the construction man's standpoint. Even the on-the-site reporting of a few newspaper men and photographers has been inadequate because they merely visited one or two of the easily accessible points and saw only a few miles of the road. Such stories do not describe the Alcan Highway work any more than a road from New York to Denver would be described by stories of the route near Harrisburg and Pittsburgh.

It was recognition of this situation, plus the fact that the Army engineers were too busy building the road to take time to write about it, that led *Engineering News-Record* to assign one of its construction-trained editors to the job. Richardson left on his trip about the first of October, with the full cooperation of the Corps of Engineers and with a war correspondent's credentials. He should bring back a story that no *News-Record* reader will want to miss.

In the meantime his first report to headquarters on his progress to date has come in. The report gives a picture of the job that every engineer and construction man will appreciate. Hence the Alcan Diary, elsewhere on this page. Barring a more serious jeep wreck than the one Richardson records therein, additional chapters can be expected at a later date.

Harold Richardson, western editor, Engineering News-Record and Capt. Elmo Schlei, QM at Dawson Creek railhead.

ALCAN HIGHWAY DIARY

Harold W. Richardson of Engineering News-Record reports his progress in covering this strategic construction job.

LEFT EDMONTON Friday Oct. 2, 5:30 p.m., via Northern Alberta Ry. to Dawson Creek—495 miles—and train schedule is exactly 24 hr. Rode upper berth in a dilapidated wooden sleeping car, and, since the route for first 200 miles is over muskeg, rolled and pitched all night over rough track while the car creaked and groaned like a ship in a storm. Train crowded with construction workers.

At Dawson Creek, Col. R. D. Ingalls, commander, southern sector of the Alcan Highway, had Capt. Elmo Schlei, QM in charge of Dawson Creek railhead pick me up. Stayed at officers quarters at railhead Saturday night. Introduced to Alcan poker; the result will show up on expense account as taxi fares.

Sunday, covered the railhead operations where they are just starting huge expansion for cargo freight truck operations. Col. H. L. Twitchell (CE) commander at railhead, came in from a trip Sunday p.m. just as I was about to leave for Ft. St. John by meat truck. He asked me to stay over, which I did to advantage for he had been out on the line during early operations in command of a colored regiment and had lots to tell.

Stayed at Dawson Creek again Sunday night, and Monday a.m. Col. Twitchell and I started for Ft. St. John in a command car. He left me at Peace River, which we crossed on ferry, in high wind, with difficulty.

Arrived Ft. Alcan (army camp and headquarters at Ft. St. John) 1 p.m. Monday. Spent entire afternoon with Col. Ingalls and Lt. Col. A. C. Welling getting early history of job. Was issued an officer's sleeping bag and Arctic fur cap and assigned to a tent for the night.

Tuesday morning I came over to camp of the Okes Construction Co. of St. Paul, contract managers for Ft. St. John-Ft. Nelson section—Day Okes and Wm. Bates in charge. These contractors are building bridges, grading and graveling the trail road.

Decided to spend the day here to check up on equipment repair facilities. Day Okes wants me to spend tonight with him in new quarters boasting a shower bath. Okes says I ought to spend a day on Sikanni Chief Bridge. Its only 126 miles from here, which they regard as a mere nothing.

This whole project is one of supply and organization, construction operations in themselves being simple. Right now, two officials of a Canadian oil company are here trying to work out a better method for keeping constructors supplied with gas and oil. Contractors are working so much faster than contemplated originally that all supply must be speeded up.

Most dramatic feature of job as a whole (south sector) was getting a regiment through to Ft. Nelson from Dawson Creek last March before the winter road over muskeg broke up. All equipment, including tractors, was driven from Dawson Creek, 325 miles, in 35-below-zero weather. Cat tractor operators had no cab protection—sat in bitter open. Bridges on the provincial (B. C.) road between Dawson Creek and Ft. St. John were too weak to carry heavy equipment so it had to go down steep banks and over the ice. Equipment turned over at times, some wrecks, etc. Problem of keeping men supplied enroute was terrific; men had no relief or food for 2 or 3 days. But they got through, and worked north from Ft. Nelson all summer. Outfits from St. John reached Ft. Nelson in August. Contractors will have road graveled into Ft. Nelson in about 3 weeks.

Big bridges at Peace and Sikanni Chief are to be built this winter. Temporary pile bridge now going in across the Peace is to last until spring ice break-up, unless it goes out with fall ice flows.

Manpower is a problem—Okes has to hire U. S. contractors who must bring or supply own men. Not so bad up to now, but men are beginning to leave to escape cold weather, and replacements are coming in slowly.

Muskeg bugaboo is a myth—15 miles total for 1,600 miles of highway.

Longest stretch 3 miles. Corduroy has been placed over most of it and some has been *insulated* with rotten wood, moss and clay to keep frozen material below from thawing. It is holding up fine.

Army made plans for me to start out from Ft. St. John Wednesday morning, but before we left, Major M. E. Erdofy, who was assigned as my guide, suggested taking a look at the road from the air. So we took off in a nifty little seaplane from Charlie Lake near Ft. St. John and flew above the road to Ft. Nelson and back, a 4-hr. trip. Got a fine idea of the country, learned to recognize muskeg from the air, and saw just how the road ducks around muskeg patches. Beautiful job of location.

At 2 p.m. Major Erdofy and I left Ft. St. John in a jeep, open except for windshield and cloth top. Dug my sheepskin coat out of the dufflebag in a hurry. Drove about 125 miles to the Sikanni Chief River by night fall, so you see what condition the road is in down there. Spent the night with P. M. Pedersen, contractor on the new bridge, who is just getting started.

Left camp 9 a.m. Thursday after looking over work there, and drove to Ft. Nelson, 145 miles, by 4 p.m., stopping now and then to see graveling and improvement work by contractors. Army engineers and contractors deserve a lot of credit for what's been accomplished. You almost have to see it to believe it. We put the jeep through some tough spots in getting around equipment rather than waiting. In the ditch twice, but no harm done. Then, after arriving at Ft. Nelson we were driving alongside an airbase runway, both watching a plane come in, when we smacked into a cross-drainage ditch, wrecking the front end of the jeep and giving my head a terrific bang against the windshield. Was holding the camera on my lap to protect it and knocked off the synchronizer bracket, but got it back on okay. Bedded down for the night at the Northwest Ferry Command quarters—which aren't bad at all. Major scouted around the job and found a couple of mechanics and some spare jeep parts, so looks like we get going in the morning. (Oct. 9.)

Route of the Alcan Highway from Dawson Creek, Canada, to Big Delta, Alaska.

WATSON LAKE, Y. T., SUNDAY, OCT. 11—Pulled in here late this afternoon after three days traveling by jeep out of Ft. Nelson. Have now ridden 650 miles in the jeep, and my bones are getting readjusted to some new and strange form of framework.

After leaving Ft. Nelson Friday morning, we traveled through 50 miles of brush, then went up over Steamboat Mountain where a contractor is building a cutoff to eliminate some bad grades. Another contractor is moving in at MP 80 west of Nelson, but from there on it is all Army engineers. Quite a climb up to Summit Lake (El. 4,200) at the head of the Tetsa River to pass through the Rockies. Then we dropped down into the McDonald valley, where the road for miles crosses boulder flats that are below flood level, then over a low divide into the Racing River valley. The original line loops 2½ miles up the valley to a narrow gorge crossing but a new cutoff bridge is now being built to save 5 miles.

Then the road follows up the Toad River, a beautiful scenic canyon leading up into the mountains at Muncho Lake. Another regiment is in there now widening and picking up the trail road from the river bottom. The trail road follows along the top of cliffs—narrow, 30 percent grades and twisting—so that the new road is being blasted along the lake shore.

Col. Ingalls arrived in hydroplane while we were at Muncho Lake, and he sent me up for an hour's ride through the Trout Canyon and the Liard Valley. We drove down the Trout River valley Saturday p.m. and well up into the Liard Valley. Lots of work needs to be done in the Trout valley. A temporary bridge across the Liard was completed Sept. 28.

Friday night we had a comfortable camp with army troops in the Toad Canyon, but Saturday night spent a rather miserable night with an outfit on the Liard that was just completing a move. This outfit is part of the gang that went into Ft. Nelson last March.

All day today was pretty tough going—much work remains to be done between the Coal and Hyland River crossings along the Liard. The outfit from Ft. Nelson met the outfit working east from Teslin about 25 miles east of Lower Post. I'm being turned over to Col. F. S. Lyon, commander of the latter outfit. Major Erdofy leaves me here. We are spending the night at the RCAF headquarters at Watson Lake—mainly because they have shower baths here.—*H.W.R.*

How the Alcan Highway looks from the air. Indian village on lake shore in right foreground, contractor's camp at roadside upper left.

Robins Fleming dies; wind-stress authority

Robins Fleming, pioneer in the development of rational theories for the design of bridges and buildings to resist wind loads and widely known structural engineer, died at New York Nov. 2, at the age of 86.

Mr. Fleming was born in Readington, N. J., in 1856 and graduated from Lafayette College in 1877. After three years of teaching and survey work in Ohio, he entered the employ of the King Bridge Co. of Cleveland, beginning a long career as a structural engineer, which continued without interruption—except for three years of teaching civil engineering at Lafayette College—until his retirement from active practice in 1931. From the King Bridge Co., Mr. Fleming went to the Berlin Iron Bridge Co. of East Berlin, Conn., ultimately becoming its chief engineer; and when that company was merged with the American Bridge Co. he went to its Philadelphia office as designing engineer, subsequently being transferred to the New York office.

Mr. Fleming was a prolific and lucid writer; his contributions to technical literature total more than 200, over half of which were published in this journal and its predecessors, *Engineering News* and *Engineering Record*.

Six monographs on wind stresses published in *Engineering News* between 1912 and 1915 set forth Mr. Fleming's portal and cantilever theories, which subsequently were adopted by most structural engineers. These were reprinted in book form in 1915. In 1930 Mr. Fleming amplified this earlier work by a book entitled "Wind Stresses in Buildings," which made a valuable contribution to the design of mill buildings and contained chapters on earthquake resistance. The theories Mr. Fleming developed in his early studies served as a guide for the designers of the first tall steel-frame buildings. When it came to the design of the slender towers of skyscrapers to resist wind, Mr. Fleming, in his book of 1930, conceded that these "are in a class by themselves and require special study." That study was taken up by others, notably Henry V. Spurr in his book "Wind Bracing" published in the same year as Mr. Fleming's "Wind Stresses in Buildings."

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War agency to cooperate with contractors group

The Smaller War Plants Corporation has agreed to include contractors connected with the building trades with other small business men it will attempt to assist, according to Philip Wolf, chairman of the American Contractors War Advisory Committee.

The SWPC is now preparing to furnish money to finance conversion of small manufacturing concerns into munitions plants that will be of material help to the armed forces and enable their owners to carry on during the conflict.

According to an announcement issued by Lou E. Holland, chairman of the war agency, the organization also will arrange with the chiefs of the construction department of the Army, Navy, Coast Guard and Public Health Service to assign a "reasonable" percentage of future building contracts to pools of four or more small contractors of recognized ability who will be selected for the job on hand.

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California to use pressed hardwood road markers

For the duration of the war, there will be no more steel signs directing and warning motorists on California highways. Cooperating with conservation programs, the Division of Highways announced recently that markers posted by its signposting department will be composed of pressed hardwood.

Reflectorized signs will be made of the same material, beaded to reflect headlights. The first beaded signs were posted recently along the Southern California coastline to designate authorized dimout zones, and replace the emergency cardboard markers that had been used.

Pre-war signs were made of porcelain enamel fused into steel for indefinite lasting qualities. The substitute pressed wood signs, treated and painted for preservation, are expected to prove durable for a number of years.

Redwood posts will be utilized where metal posts were previously used.

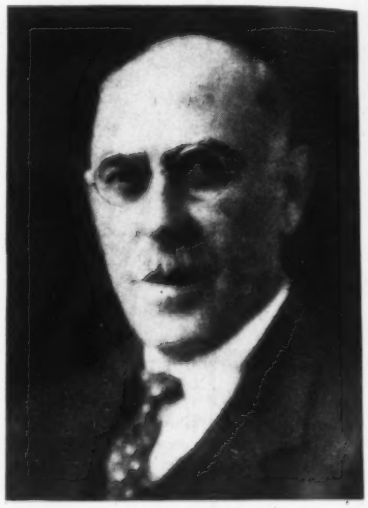
J. B. Lippincott, honorary Am.Soc.C.E. member, dies

J. B. Lippincott, 78, a[n] honorary member of the American [S]ociety of Civil Engineers, and widely k[n]own as an expert on water supply [p]roblems, died suddenly in Los Angeles [N]ov. 4.

In recent years he had [b]een a leading consulting engineer in [S]outhern California, identified most frequ[e]ntly with reclamation and water develop[m]ent projects.

A graduate in 1886 of the University of Kansas, he began engineering work with the Atchison, Topeka & Santa Fe Railway. Two years later he became a hydrographer in the U. S. Geological Survey, filling that post for four years, making important hydrographic reports. After a brief period as assistant engineer of the Bear Valley Irrigation Co., he returned to the Geological Survey as hydrographer in 1893, and held this position until 1902 when he was made supervising engineer for the U. S. Reclamation Service, in charge of the Pacific Coast district.

In 1906, Mr. Lippincott resigned from the Reclamation Service to take the post of assistant chief engineer of the Los



Angeles aqueduct, and in 1913, he opened offices in Los Angeles to practice consulting engineering, specializing in water supply and irrigation work. He practiced throughout the Western States, Alaska, Mexico and the Hawaiian Islands since that time.

He became an honorary member of the society in 1936.

THE Southern regional office of the Federal Works Agency has contracted with Joseph Duffy Co. of Chicago for construction of sewer facilities for Biloxi, Miss. The project calls for construction of a $270,921 sewerage treatment plant and installation of a $598,734 sewerage collection system.

Houston, Texas, to begin $2,000,000 San Jacinto water supply project work

Project will be financed and owned by Federal Works Agency, with city water department acting as design and supervising engineers

A surface water supply project to serve industrial users in Houston, Tex., with about 90 mgd, will go into construction within the next few days.

Estimated to cost over $2,000,000, the project is financed and owned by the Federal Works Agency, for whom the Houston municipal water department is acting as design and supervising engineers.

The source to be tapped for water is the San Jacinto River, for many years considered a logical stream to supplement groundwater supplies upon which the city and industries now rely entirely. Lowering of the water table, coupled with increased industrial demands, made it urgent to start the new surface supply without delay.

The Federal Works Agency undertook the project as a war emergency public works job because legal difficulties were threatened by the San Jacinto Reclamation and Conservation District if the city of Houston had attempted to build the project itself. The conservation district holds certain rights to the development and use of river waters.

Acting as engineers for the FWA, the city will receive a fee of 4.6 percent of the cost of the project, according to J. C. McVea, director of the Houston water department.

The project consists essentially of a pumping station at the river's edge, two open, unlined canals, two earthen reservoirs, and a booster pumping station. One canal, serving industries on the west side of the river, is to be 15 mi. long; the other, serving industries on the east side, is to be 20 mi. in length.

Relatively little in the way of critical materials will be needed. In fact, three of the five 12,000 gpm pumps required will be delivered in December, the city having bought them from an oil company that had contemplated building its own surface supply but which will now participate in the joint industrial venture. It is expected the east canal will be completed in March and the west canal in July 1943.

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Southern California water demand increases rapidly

The demand for water to supply war factories, homes and military establishments has broken all previous records in a number of cities included in the metropolitan water district of Southern California, according to a report released by the district engineering staff recently.

Notwithstanding the extraordinary demand for water, the report points out, the metropolitan area of southern California has enormous water reserves on hand, thanks to the Colorado River Aqueduct.

During the 12 months period ending June 30, 1942, the report said, water production and use within the district reached an all-time high. The total average production increased 22 mgd. over the previous year.

Greatest increase in water use was recorded at Burbank, where consumption increased 34 percent. In Fullerton, the increase was 20 percent, in Compton 17 percent, and Long Beach 13 percent. Greatest increase noted at Los Angeles was 7.5 percent.

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Baltimore rejects water supply expansion bonds

Voters of Baltimore, Md., last week rejected by a 3 to 1 vote a proposed $32,000,000 water supply expansion bond issue, despite pleas of the city administration and city engineers for its approval.

Funds from this loan were to have financed an extension of the present water supply system to include the immediate erection of a pumping station on the Patapsco River at Avalon, and a force pump main to the Montebello filters, to provide an additional 50 mgd. for the city's supply.

City engineers in the past few months had advised the city plan commission that current rates of water consumption threatened to exceed available supply. (*ENR*, June 11, p. 995).

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Ohio road relocation contracts awarded

Contracts for a million dollar highway relocation project in Portage and Mahoning counties, Ohio, designed to lift the roads above the water line of the new Berlin reservoir on the Mahoning River (*ENR*, Oct. 1, p. 459) have been awarded by the Ohio Department of Highways.

The same projects were offered to contractors recently but brought no bids. The estimates were then revised and a reoffering was made on October 20. Hinman Bros. Construction Company of Pittsburgh and D. D. Mullett Company, also of Pittsburgh, were awarded the work for bids of $641,418 and $319,857, respectively.

Projects include construction of a continuous concrete beam bridge with concrete substructure over the Mahoning River; grading, drainage structure, paving and roadside improvements on other roads.

"Minimum Obstruction" viaduct is opened to traffic

The North Sacramento (Calif.) overpass for which an unusual system of supporting columns was designed by the California Division of Highways to meet a requirement for minimum obstruction (ENR Sept. 10, 1942, p 348) has recently been opened to traffic. This half-million-dollar structure combines vertical and horizontal curvatures and also has super-elevation at some points that gives a transverse slope of 8 percent to the roadway surface. The deck carries two 2-lane 25-ft. roadways with a 4-ft. median strip.

MEN AND JOBS

Frank Gerig, a civilian employee of the U. S. Army Engineers has been transferred from Mission, Tex., to Little Rock, Ark. as maintenance engineer of roads, streets and utilities at Camp Robinson.

Capt. Charles H. Booth of Anniston, Ala., has been appointed area engineer at Fort McClellan.

Leslie G. Holleran has announced his association with Gilmore D. Clarke and Michael Rapuano, consulting engineers of New York City.

Barney Glazer is now area engineer for the U. S. Engineers on an airport project near Meridian, Miss.

Capt. Odric H. Smith, former Quebec, Canada, consulting engineer, has been promoted from the rank of lieutenant in the Royal Canadian ordnance corps.

C. R. Van Orman, formerly chief of the engineering division, Kansas City district office, U. S. Engineers, has been commissioned a major in the Army Specialist Corps, assigned as executive assistant to **Col. Richardson Selee,** Kansas City, Mo., district engineer. Maj. Van Orman has been in the Kansas City district since 1935, and before that was located in the Omaha district office and in the hydrology section of the Missouri River Division office.

Herman G. Klemm, chief engineer on construction of the Glenn L. Martin Co. plant in Nebraska, has been transferred to Baltimore, Md., where he is now special assistant to the engineering vice president of the company.

J. R. Caswell, former assistant district engineer in the Toronto District, has been appointed district engineer of the Algoma District for the Canadian Pacific Railway, with offices at North Bay.

Ted Day, of Crookston, Minn., former assistant Polk County engineer, has left for the British West Indies to take an engineering assignment on a project there.

Allan J. Anderson, engineer for the North Dakota State Highway Department for the last eight years, has been appointed a lieutenant (jg) in the U. S. Navy.

J. W. Spruill, district engineer for the North Carolina state highway and public works commission at Lumberton for the past 11 years, has been called to active service with the Corps of Engineers with the rank of lieutenant.

Walter J. Dixon, of Mitchell, S. D., has been elected chairman of the South Dakota State Board of Engineers and Architects Examiners.

W. N. Thompson has been appointed project manager by the H. K. Ferguson Co., for the design and construction of detinning factories to be built in about 29 metropolitan areas. Mr. Thompson, associated with the firm since 1921, will make his headquarters in the company's offices at Cleveland, Ohio.

Lt. Col. Lawrence B. Feagin has been appointed district engineer of the St. Louis, Mo., engineer district. Colonel Feagin formerly was head of the engineering division of that district.

L. M. Jones, Alabama State Highway Department resident engineer at Union Springs, Ala., has joined the navy as a chief carpenter's mate.

Frank McKellip, city engineer of Fairibault, Minn., has returned to municipal service following a leave of absence during which he served as chief engineer on an ordnance project in South Dakota.

Hugh Dorsey, former North Carolina Highway and Public Works Commission engineer, has been promoted to captain in the Corps of Engineers. Before entering the army, he was stationed at the North Carolina highway office at New Bern, N. C.

Lt. Comdr. W. S. Housel, former Detroit, Mich. consulting engineer, is now stationed in the office of the Superintending Civil Engineer, Bureau of Yards and Docks, at Norfolk, Va.

Joseph Pierce Trotter, Alabama State Highway Department bridge engineer, resigned recently to become general manager of Greeson Mfg. Corp., of Montgomery.

Graham P. Willoughby, former assistant bridge engineer, has been promoted to fill Mr. Trotter's place.

J. W. Somerville, formerly assistant engineer for the city of Jacksonville, Fla., and now an engineer for the United States Maritime Commission, has been transferred to Tampa as port representative for the commission.

W. J. Highsmith, Jr., district sanitarian for Washington, Tyrrell and Hyde Counties, N. C., has entered the Naval Reserve Training School at Columbia University, N. Y.

Lt. Robert S. Harrison has replaced Capt. Walter N. Lane as executive officer and operations officer at the Army's Black Hills ordnance plant in South Dakota.

Willis MacLachlan, Ontario Hydro Electric Power Commission engineer, has been elected chairman of the engineering section of the National Safety Council of the United States. He will assume executive direction of the accident prevention program for the many companies throughout the United States and Canada who are members of the organization.

Col. McDonald D. Weinert has assumed his duties as district engineer of the San Antonio, Tex., district for the Corps of Engineers, succeeding Col. T. M. Osborne, who has been assigned to new duties.

Maj. Oliver A. Lewis has been assigned as area engineer for the Boise, Pocatello and Weiser, Idaho, regions by **Col. Daniel J. Leehey,** district engineer at Portland, Ore.

N. E. Offenhiser has been appointed consulting engineer to the Board of Levee Commissioners of the Yazoo, Miss. delta.

A. J. Wehner, of Burlingame, Calif., who was construction engineer at the San Francisco airport, has taken a leave of absence to accept a post as maintenance engineer and superintendent of construction of South American airports for Pan American Airways system. He will make his headquarters in Miami, Florida.

Nathan Weis, a civil engineering graduate of Iowa State College in 1941, has been employed to do sanitary engineering work and designing for the Stanley Engineering Co., at Sioux Falls, S. D.

George J. Davis, Jr., dean of the college of engineering of the University of Alabama, has announced the establishment of a placement service to aid graduating students in choosing among competing bids for their services from industry and governmental agencies. **Dr. S. Derso** will be head of the service.

Leroy B. Wilson, a recent engineering graduate of Iowa State College, has recently been commissioned an ensign in the U. S. Navy.

Virgil M. Capesius has become a junior engineer, associated with the Corps of Engineers at Omaha, Neb. He graduated as a civil engineer from Iowa State College in 1940.

Abandon Specialists Corps as failure

The Army Specialist Corps was abandoned last week as an admitted failure.

Its activities in recruiting uniformed civilian specialists for the Army have been coalesced with the regular officer recruitment program into a new Officer Procurement Service, which will have charge of all granting of commissions direct from civil life without previous military training.

Breakdown of the old Specialists Corps reflected two major flaws. The plan required that the regular branches of the Army requisition from the corps such specialists as they needed. In general, however, the branches didn't feel sure how to deal with a uniformed civilian and preferred to grant Army commissions to men they wanted. Also, the best candidates for specialist posts preferred to seek commissions. Appointments through the Specialists Corps tended to be limited to men who couldn't meet the physical requirements for an Army commission.

Before its demise, the corps had appointed 1,923 specialists and had referred 7,221 men for appointment as Army officers. It had accumulated in its files about 300,000 applications for appointment, including 17,535 from civil engineers.

Men who have already received specialist appointments will, for the most part, be offered commissions. The application files of the Specialist Corps are being transferred intact to the Officer Procurement Section, so that men who now have applications on file with the corps need take no further action.

In the future, men who want commissions should apply to one of the 36 field offices of the Officer Procurement Service, which are located in most of the bigger cities. In general, no one under 35 will be commissioned direct from civilian life unless he has a 4-F draft classification. Men between 35 and 45 with 1-A or II classifications will not be considered.

Stilts save steps for war workers

An engineer figured out that electricians wiring barracks and mess halls at Fort Lewis, Wash., traveled more than half a mile per day just climbing up and down stepladders in the course of their jobs.

He suggested that stilts might save this walking, as well as valuable time and shoe leather.

As a result, the Electric Construction Co., of Seattle, ordered stilts for all its men, some of whom are shown at work above.

WPB opens way to continue housing

The War Production Board last week opened the way to continued initiation of privately financed war housing, when it allocated an additional 15,000 tons of steel to housing construction in the fourth quarter of 1942. A week earlier, WPB had ordered (*ENR*, Nov. 5, p. 618) that no more priority ratings be granted on private housing when it appeared that fourth-quarter housing allotments were nearing exhaustion.

WPB indicated that it would rely on the National Housing Agency to determine the distribution as between public and private housing. At present, all applications for priority ratings on private housing must clear local offices of FHA, a unit of NHA.

The new allocation brings to 45,000 tons the steel available for housing in the fourth quarter. This would permit construction of 60,000 dwelling units. There is, however, no assurance that sufficient lumber will be available to build that many houses. In recent months, lumber supply has been causing more difficulties to house builders than metal.

All housing, public and private, must conform to the new retrictive standards for house design reported in these columns. More stringent rules to restrict occupancy of houses to bona fide war workers were also included.

Air raid shelters are now available for 3,000 residents of Mexico City, with the completion of such accommodations in a downtown building to be finished soon.

Intracoastal canal work out for war duration

The proposed extension of the Intracoastal Canal from Corpus Christi, Tex., to the Rio Grande River at Brownsville, a distance of 110 miles, cannot be made during the war, Maj. Gen. Thomas M. Robins, assistant chief of engineers, told members of the Intracoastal Canal Association at a regular meeting in Harlingen, Tex., recently.

"I regret to state that it is impossible that the much needed extension of the waterway can be undertaken during the war," General Robins said. "Neither can the barge canal across Florida be undertaken. An expedited schedule to assure completion of these sections of the waterway in time to be of use for war purposes would cause the diversion of considerable equipment, critical materials and manpower now necessary elsewhere in the war effort."

Estimated cost of the proposed extension would be $6,500,000.

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New York raises post-war planning cost sights

In recommending a capital budget for 1943, the New York City Planning Commission last week expanded the total projected cost of a post-war construction program (*ENR*, May 14, p. 817) which had envisioned the expenditure of $628,518,200.

The new recommendation raises the original figure by about $50,805,910.

The city's board of estimate has already authorized $22,000,000 for the actual planning of these projects, so that the city will be able to get its program under way without delay to absorb expected unemployment of the post-war period.

Of the planning funds made available, $10,500,000 was to be expended during the current year on plans, with the remainder being carried in the 1943 budget.

The post-war program is based on the assumption that the city would be able to bear half its cost, with the federal government contributing funds to meet the total cost.

The program is to take up any slack in employment in the postwar period.

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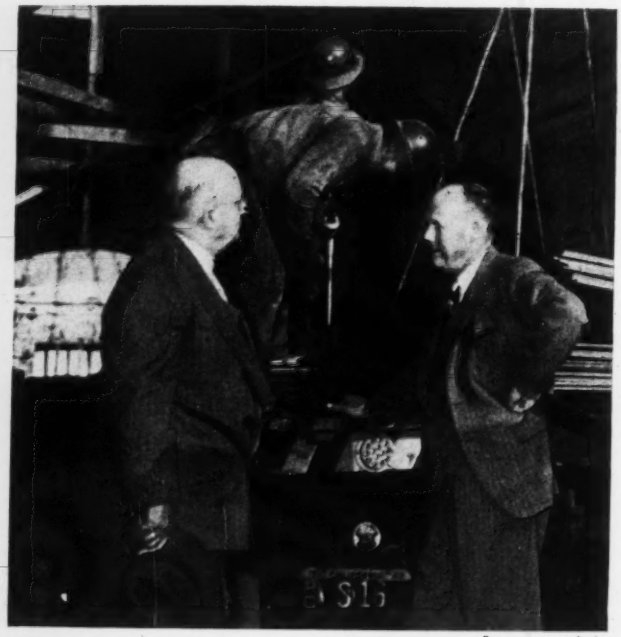
Mexico plans huge dry-dock and ship yard

President Manuel Avila Camacho, of Mexico, has authorized construction by the federal government of a shipyard and drydock on historic San Juan de Ulua island in the harbor of the port of Vera Cruz, at a tentative cost of $5,150,000.

The work will be performed under the direction of the Marine Ministry, of which Gen. Heriberto Jara is chief.

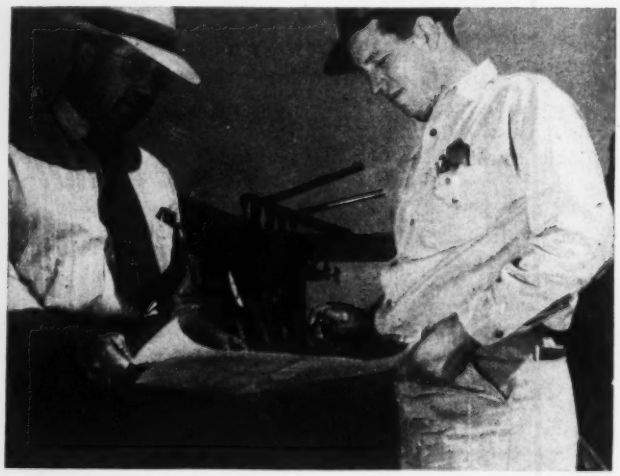
MEN AT WORK



Press assn. photo

Above: Shouting above the clatter of construction operations at his company's new steel mill at Fontana, Cal., HENRY J. KAISER discusses plans with TOM PRICE, project construction manager. The new mill—first entirely new mill to be completed since Dec. 7, is to go into production about January 1, producing 1,200 tons of pig iron daily.

Above: Speed in shipyard construction needs top-flight talent where the work calls for 1,000,000 cu.yd. of excavation, 3,000,000 cu.yd. of dredging and 29,000 piles dependent largely on skin friction. These were the requirements at Marinship, where a Liberty Ship was launched 183 days after yard construction was started by T. N. WHITFORD, chief field engineer for the W. A. Bechtel Co., Sausalito, Cal.

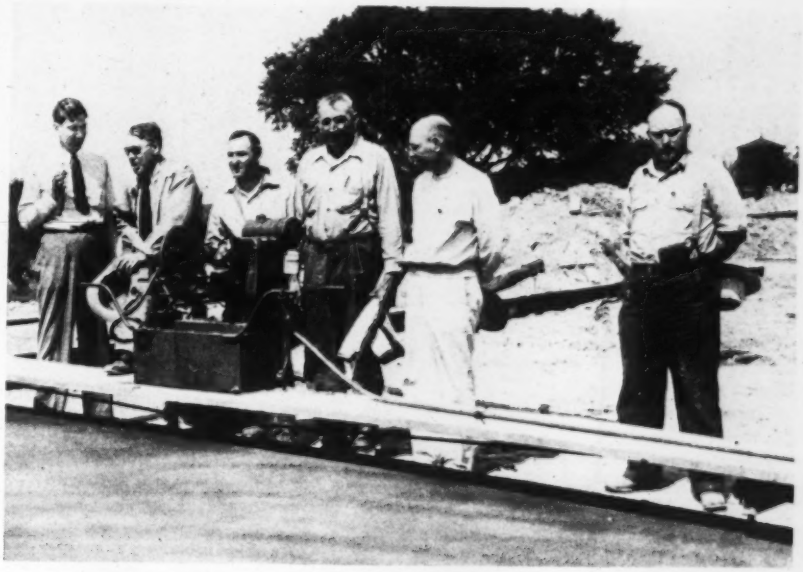


Above: The roadmix method of combining emulsified asphalt with surface soils is an important factor in meeting demands for speedy airport runway building. CLYDE W. WOOD (left), shown conferring with his son, FRANK C. WOOD, has developed special roadmixer equipment for this work.

Right: D. M. PHELPS, JR., now Acting Commissioner of Rural Highways for the Kentucky Department of Highways, has had a long and varied engineering career. A native of Kentucky and a graduate of the state's University, he has been an engineer for railroads, construction firms and a coal company; headed his own construction company, and has become progressively instrumentman, project engineer, resident engineer, assistant district engineer and chief engineer of rural highways during his association with the road bureau.

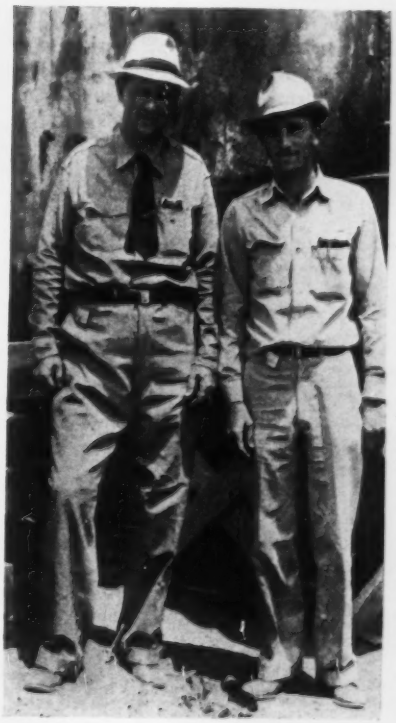
Above: C. RAY SHINN, vice-president of Morrison-Knudsen Co., Inc., is executive manager of the organization's Seattle, Wash., office, and supervises all operations in Alaska. An employee of the company since 1918, he has participated in work on most of its largest projects throughout the West.

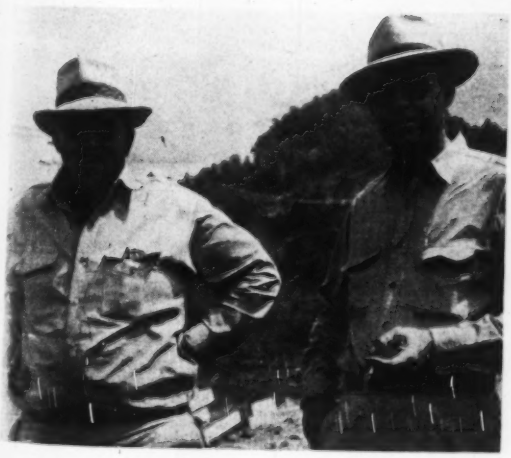
Below: Michigan highway officials and contractors inspect equipment at start of concrete pouring on new defense road that connects defense areas with metropolitan Detroit. Left to right: HOMER CASH, state highway construction engineer; KEITH BAGLEY, project engineer; M. H. GOLDSMITH, office manager for the Oak Construction Co.; H. FOSS, superintendent; J. M. McCAVEY, secretary-treasurer of the Oak company, and CLARENCE SANDIN, state slab inspector.



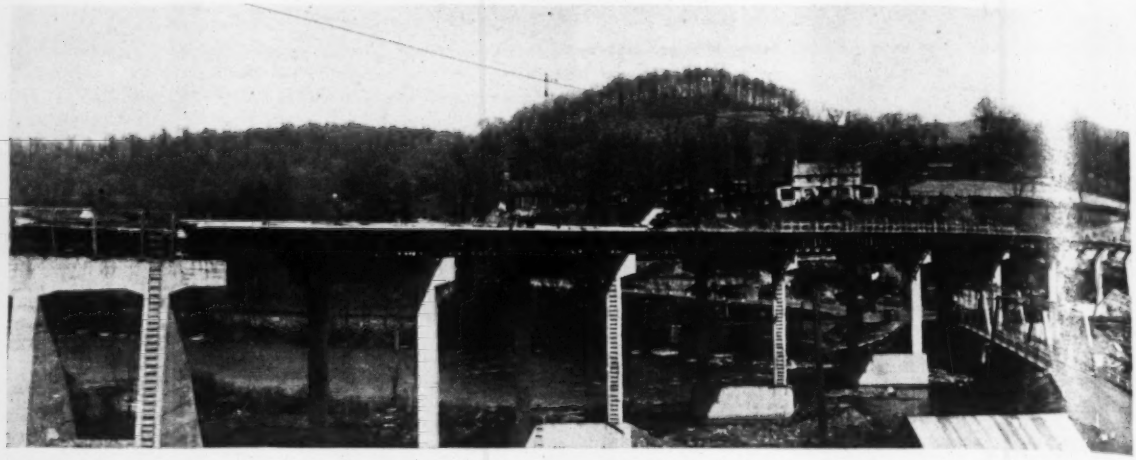
Right: E. L. CHANDLER (right) and L. HAYDEN FANCY, project manager and resident engineer, respectively for Chas. T. Main, Inc., discuss plans for speeding construction on a new shipyard to be operated by the Dravo Corp., somewheres on the Atlantic Coast.

Below: BENJAMIN H. ELLIS (left) chief mechanical engineer, and FLOYD BARNEY, assistant superintendent in charge of contract operations, were on hand recently during the assembling of the dredge "Nebraska" after an overland trip by railroad to Albany, N. Y. The Gahagan Const. Co. will use the dredge in work on the eastern seaboard.





Left: R. G. KNOWERS, at right, is superintendent at Center Hill Dam in Tennessee for the Raymond Jones Co., subcontractor for excavation, fill and drilling work. L. T. BURKES, at left, aids Knowers, in his capacity as assistant superintendent.



Tygart river bridge eliminates bad curve and grade crossings in West Virginia

Now nearing completion near Elkins, W. Va., on a heavily traveled highway is this new bridge over the Tygart river.

The structure not only eliminates a bad curve at either end, and grade crossings over the Western Maryland and the Baltimore & Ohio railroads, but it provides 40 ft. more clearance above high water than the old bridge.

In contrast to the 11 ft. roadway of the old bridge (shown at lower right), the new structure provides a 26-ft. roadway, and two 3-ft. sidewalks. Consisting of four lines of 36-in. steel I-beams supporting a reinforced concrete deck, it is 705 ft. overall. The bridge includes two 72-ft. simple spans and two three-span continuous units; the longer measuring 90-110-90 ft., and the second 83-97-83 ft.

Costing $151,000, the bridge is being built by the State Road Commission of West Virginia, for which M. L. O'Neale is chief engineer; George W. McAlpin, state construction engineer; and L. L. Jemison, bridge engineer. Dodd & Archer, of Spencer, W. Va., are contractors.

More engineering schools accredited by ECPD

Engineering courses at Notre Dame and at the University of Toledo were added to the list of curricula approved by the Engineers' Council for Professional Development at its annual meeting held in New York in the latter part of October. At Notre Dame, curricula in aeronautical, civil, electrical, mechanical and metallurgical engineering have been accredited, and at Toledo, the course in general engineering. Additional curricula also were accredited at twelve other schools, chiefly courses in chemical engineering. This brings the total to 577 engineering curricula in 131 schools accredited by E.C.P.D.

At its tenth annual meeting, the council re-elected R. E. Doherty, president of Carnegie Institute of Technology, as chairman. S. D. Kirkpatrick, editor of *Chemical & Metallurgical Engineering*, was named vice chairman, and A. B. Parsons, secretary of the American Institute of Mining and Metallurgical Engineers, was named secretary of E.C.P.D.

Committee chairmen, representing the council's four fields of work, were named as follows: Committee on Student Selection and Guidance, A. R. Cullimore, president of Newark College of Engineering; Committee on Engineering Schools, D. B. Prentice, president, Rose Polytechnic Institute; Committee on Professional Training, Everett S. Lee, engineer, General Electric Co.; Committee on Professional Recognition, Charles F. Scott, New Haven, Conn.

City may police outlying water supply sources

Under its police powers a city can make any regulations it may see fit to govern its municipal water supply, even though the supply source may be located in another county, the Alabama Supreme Court ruled recently.

In a friendly suit, the City of Birmingham sought a declaratory judgment against O. L. Lake, to prevent him from fishing in Inland Lake, 30 miles from Birmingham, from which the city receives a part of its water supply.

"Such police jurisdiction is natural and probably necessary, incident to the right to own and operate a municipal water-works plant outside and beyond the general police jurisdiction of the city," the court said.

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Bonneville takes up slack in West Coast power need

Unprecedented drought conditions in Pacific Northwest watersheds during the past four months have made it necessary for Bonneville and Grand Coulee Dams to supply between 40 and 50 percent of the entire power requirements of Oregon and Washington, according to the Bonneville Power Administration.

Flow of all major streams in Oregon and Washington, except the Columbia River, dropped to an average of 14 percent below the most critical water year of record.

As a result, the Bonneville-Grand Coulee power system, by overloading its generator units and taking advantage of high load factor operation conditions, has made available huge supplies of electricity to private industries and municipal systems in addition to supplying its own large war industrial customers.

November 1 operating reports of the Bonneville Power Administration show more than 500 million kw.-hr. of Bonneville and Grand Coulee electric power were delivered to major utility systems in Oregon and Washington. More than 140 million kw.-hr. went to the system of the Washington Water Power Co., while the municipal system of Seattle took 58 million kw.-hr. Tacoma's city system received about 110 million kw.-hr. and the Portland General Electric Co. received more than 190 million kw.-hr.

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Dedicate Ohio water supply reservoir

Gov. John W. Bricker of Ohio recently attended ceremonies near Youngstown marking dedication of the Berlin reservoir and dam of the Mahoning Valley Conservancy District.

Nearing completion under the supervision of army engineers, the 6,600-acre reservation will be flooded with an estimated 28 billion gallons of water. The reservoir will guarantee a 162 mgd. minimum flow in the Mahoning River. Its lake will be 10 miles long and several miles wide.

Brazil plans to electrify steam railroad lines

In order to avoid excessive cost of importing coal to run its railroads, Brazil has embarked on a long-range railroad electrification program designed to make the republic self sufficient with respect to power, and at the same time independent of foreign sources of fuel.

The country has abundant water power, but is faced with the wartime problem of obtaining necessary turbines, generators, wiring, electric locomotives and other necessary equipment.

First line to be electrified is a 90-mile section of the Sorocabana railroad, between Sao Paulo and San Antonio. The project, said to be the largest now under way in the Western hemisphere, is expected to cost about $10,000,000, and be completed within three years.

Heavy rails are now being laid, and the 80-ton steam locomotives formerly in use are to be replaced by electric locomotives of 180 tons—said to be the heaviest electric locomotives ever built for narrow gage track. Trains will be longer and will travel at greater speed.

Seven thousand poles to support the electric lines will be made of reinforced concrete. Power for the line will be supplied by three secondary plants.

Electrification equipment is being purchased from the United States.

The Sorocabana Railroad, owned by the state of Sao Paulo, is 1,316 miles long.

THE Oklahoma State Highway Commission has received bids October 27 on road construction projects estimated to cost $1,250,000.

Mexico-Guatemala rail-link bridge opened

Heavily laden freight trains were in service last week across a newly completed half-mile bridge spanning the Suchiate River on the Mexico-Guatemala border.

The bridge—which replaces a lighterage system of transfer from Guatemala narrow gage railroad system to Mexico's standard gage lines on the other side of the river—permits Mexican equipment to cross to the Guatemalan side, where its freight cars may be loaded directly from Guatemalan railroad equipment.

Until the anticipated completion of the Pan-American highway through Central America within the next year the bridge will provide the only rail link in the all-land route through that part of North America.

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Approve major expansion of Kansas City airport

Informed of federal approval of expenditures on the new Kansas City-Grandview airport, Kansas City, Mo., officials last week made plans for rapid completion of grading and paving work to make it available for use as soon as possible.

The Federal Airport Approval Board, composed of the secretaries of war, navy and commerce, notified Mayor Gage of Kansas City, that it had approved an expenditure of $2,000,000 for further work on the port. The airport, located about eight miles from the city, will be the third airport serving the Midwest metropolis.

Funds for construction of runways, grading and other work with the exception of buildings, have been provided in a bond issue voted last year.

The airport site comprises 981.44 acres.

Tentative plans call for a 200-ft. concrete landing strip on the 7,000-ft. north-south runway, flanked in turn by 200-ft. grass shoulders. The entire area will not be graded to create a flat field, but each runway will be of adequate width with a generous shoulder. Where the ground level changes at the edge of the shoulder, gently sloping terraces will be created to lessen the chance of damage to aircraft.

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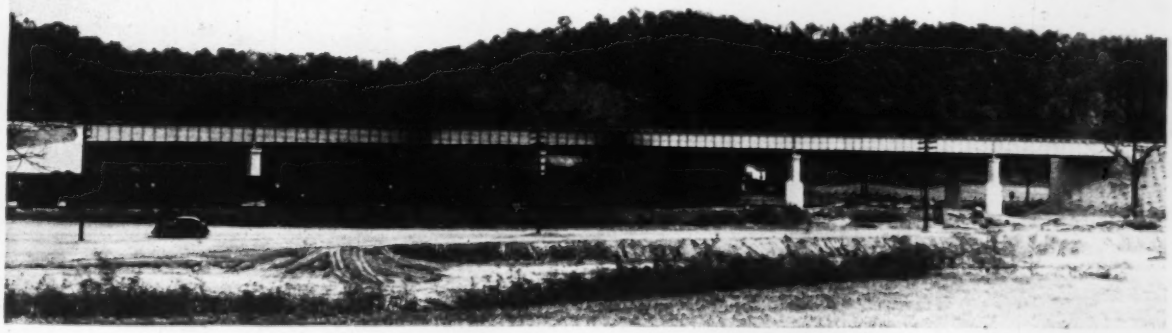
Engineering Foundation elects new officers

At the recent annual meeting of The Engineering Foundation, research organization of the professional engineering societies, A. L. Queneau, metallurgist for the United States Steel Corp., was elected chairman for the coming year.

Other officers include Kenneth H. Condit, dean of engineering at Princeton University, vice-president; Edwin H. Colpitts, formerly director of the Bell Telephone Laboratories, director; and John H. R. Arms, secretary.

The organization's executive committee is headed by Mr. Queneau and includes Mr. Condit, J. P. H. Perry; Walter I. Slichter and Charles E. Stephens.



Unusual skew is feature of long highway overpass

The Ohio Department of Highways recently completed a grade crossing elimination project to carry a main highway over the main-line tracks of the Norfolk & Western Railway.

Because of skew—the intersection angle is 17 deg. 56 min.—the bridge is 448 ft. long. It is of continuous through girder construction, with a concrete deck having a 28 ft. roadway and a 4 ft. cantilever walkway. The girders, placed to span the track arrangement, are staggered with reference to each other, and are from end to end, 64, 112, 112, 96, and 64 ft. spans, center to center of support.

Total cost, including concrete paving, is $297,810. Contractor was George H. Cheek of Frankfort, Ky. In charge of work for the highway department were G. R. Logue, chief engineer; W. S. Hindman, chief engineer of bridges and railroad crossings; T. W. Kinnear, chief engineer of construction. A. H. Peake, division engineer, was in immediate charge.

Press Assn. Photo

Picks and shovels solve tough roadbuilding problems.

Press Assn. Photo

Ferrying command car over the Laloki River, New Guinea.

Engineering Ingenuity at Work in War Zones

American engineers, often preceding armed forces into potential battle areas, have shown the world how to get things done quickly, with or despite the materials and conditions at hand.

In the short time this nation has been actively at war, engineers have scattered to some of the farthest corners of the earth to pave the way for military operations.

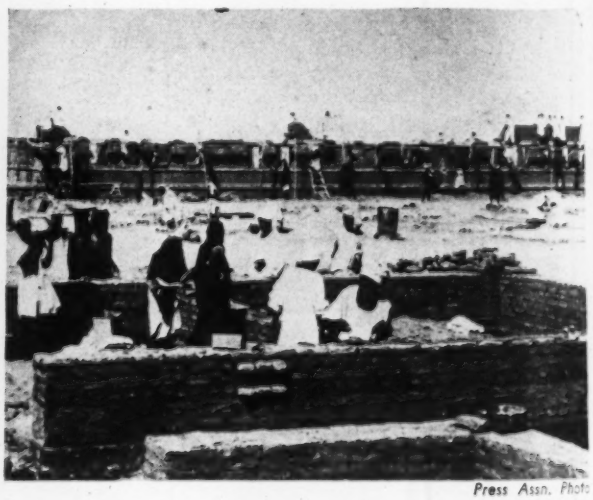
The photographs above, taken on the sub-continent of New Guinea, show engineer troops using the traditional pick-and-shovel method to build a road up a steep hillside, and (at right) an improvised ferry rigged across a stream for use until the bridge in the background could be thrown up, using native labor and materials.

Below (at left) is a unique means of building a bridge quickly, and (at right) adobe bricks are pressed into service for an airbase building in Africa.

These native workmen, with the women who serve as hod-carriers, have been transported hundreds of miles along the trans-African air route to points where their services are needed. To make the adobe bricks they use, holes are dug in the desert sands and filled with water brought by burros in goatskin bags. The earth is mixed by other natives, shaped into bricks, and piled in the sun to dry.

Acme Newspictures

The versatile amphibian tractor used by the U. S. Marines here forms the foundation for a temporary bridge across a small stream on Guadalcanal, Solomon Island base seized recently, and the scene of heavy fighting. Two of the machines may be discerned amid the heavy foliage at left, supporting the structure.



Press Assn. Photo

In Africa, where Pan American Airways engineers are supervising rapid construction of a string of airbases, native bricklayers place adobe bricks brought to them by women hod-carriers. Using the most primitive means of mixing and drying the mud, natives have been able to make hundreds of bricks for placement daily.

BRIEF NEWS

THE U. S. Circuit Court of Appeals at Portland, Ore., has reversed a decision of the federal district court at Tacoma, Wash., granting the Wauna Toll Bridge Co. $20,000 as damages incurred on the construction of Bonneville dam on the Columbia river. The company, which owned the Bridge of the Gods across the river near The Dalles, Ore., had been awarded damages to cover losses of tolls, ferry expenses and increased maintenance costs plus costs of altering the bridge, after the government sought a flowage easement over company property by condemnation.

THE total of new homes already erected or in various stages of construction at Prince Rupert, B. C., for Wartime Housing, Ltd., has now reached more than 500.

THE Baltimore, Md., City Service Commission has announced open competitive examinations for the position of structural engineer and assistant structural engineer. Applications must be filed by Oct. 27.

FUNDS have been allotted for repairs to be made soon at Kentucky State Penal and other institutions. Governor Johnson said that $907,000 had been set aside for the work from the state's $8,338,007 cash balance.

THE CITY OF MILWAUKEE won an interesting decision in the Dane County circuit court at Madison, Wis., recently, on its appeal from a ruling from the Wisconsin Public Service Commission that it be required to furnish water service to communities outside the city limits. The city argued such service would not assure an exclusive right in the future to continue the service, and that it would be put to unreasonable expense in furnishing water to these outside areas. The court ruled that the commission's order be set aside.

RE-ROUTING of highways running through Meridian, Miss., to avoid congestion, will be included in the $500,000 post-war highway program being formulated in Washington.

TOTAL construction awards in Texas for the first nine months of 1942 were $708,613,842, a figure said to break all previous records, and nearly double the total for the same period in 1941. Largest month was July, with $171,906,776.

THE THIRD in a series of evening courses in industrial camouflage under the auspices of the U. S. Office of Civilian Defense will begin at Pratt Institute, Brooklyn, N. Y., Monday, Nov. 2. The course is open to architects, engineers, landscape architects, industrial designers and other persons professionally qualified and will consist of three lectures per week for a period of five weeks, covering basic principles of protective concealment for manufacturing plants and public utilities in vital defense areas.

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Moles announce awards to Moreell and Barnes

Rear Admiral Ben Moreell (CEC) USN, chief of the Bureau of Yards and Docks, U. S. Navy, and Frank W. Barnes, construction manager of Merritt, Chapman & Scott Corp., were named last week as winners of The Moles Award for outstanding achievement in the heavy construction field.

Adm. Moreell

Formal presentation will be made at the annual business meeting of the organization in February according to Arthur A. Johnson, contractor of Long Island City, N. Y., who headed the award committee.

Admiral Moreell, a graduate in civil engineering from Washington University, St. Louis, has been in the Civil Engineer Corps of the Navy since 1917, and was raised to the rank of rear admiral and made chief of the Bureau of Yards and Docks in December of 1937. In that capacity he has directed the greatest expansion of naval construction that this country has known, including building of several large drydocks using advanced methods of construction, and rapidly built installations at many offshore bases.

Frank Barnes

Mr. Barnes has been active in engineering construction since 1901, including 12 years with the J. G. White Engineering Corp. and 15 years with Parklap Construction Corp. Since 1937 Barnes has been with his present firm on waterfront construction, bridge piers and substructures including work at Antwerp, Belgium. He is presently stationed in Quonsett, R. I., where he is in charge of work for his firm and the George A. Fuller Co. on construction of offshore bases.

Hoover medal award made to Gerard Swope

Gerard Swope, president of the General Electric Co. of New York, has been selected as the sixth recipient of the Hoover Medal—administered by the Hoover Medal Board of Award, consisting of representatives of the Am.Soc.C.E., A.I.M.M.E., A.S.M.E. and A.I.E.E.

The citation on the medal—to be presented to Mr. Swope during the winter convention of the American Institute of Electrical Engineers in the week of January 25—comments on his contribution to the nation as an engineer and leader of industry.

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Permit continuation of Brooklyn-Battery Tunnel

The War Production Board has granted permission to the New York City Tunnel Authority to continue tunneling through rock at the Manhattan end of the two mile Brooklyn-Battery Tunnel, pending final review of the authority's appeal from last week's stop-work order (*ENR*, Nov. 5, p. 617).

Permission to continue work temporarily on the $82,000,000 project was given at a conference between WPB representatives and Ole Singstad, chief engineer of the Tunnel Authority. Tunneling in soft earth at the Brooklyn end was halted a month ago for lack of bolts and other materials needed for metal lining segments. However, the authority estimates that sandhogs can work for another 18 months on the New York end before material shortage will cause them to stop work.

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TVA plans seven postwar flood control dams

The Tennessee Valley Authority recently announced that engineering plans for control of floods in the Upper French Broad River valley in North Carolina include recommendations for construction of seven dams on as many streams.

Recognizing that construction should not start until after the war, the authority said the dams would protect Asheville, Marshall and Canton, N. C., adjacent large industrial plants and 10,000 acres of rich farming bottomlands.

The dams would be on the Swannanoa River near Azalea; on Mud Creek near Naples; on Can Creek near Fletcher, on Mills River near the town of the same name, on Little River near Penrose, on Davidson River near Brevard, and on the French Broad River between Brevard and Rosman.

This Week on the Scrap Front

The nation needs scrap metal—17,000,000 net tons of it—by Dec. 31 of this year to enable the steel mills to meet the heavy demands of a rapidly expanding war industry. To get this scrap from its resting place in junk yards, contractors' lots and city storage yards, to the mills, is a job to which the engineering and construction industry can do well. Here are some of the developments of last week:

As the scrap drive settled down to a businesslike basis after the first fanfare of the campaign sponsored by the nation's press died, concrete figures began to be available.

The total tonnage of scrap metal collected in the newspaper drive had reached more than 5,000,000 tons by last week with only one-third of the states reporting final figures.

Meanwhile municipalities, contracting firms, railroads and others gave evidence of the serious consideration of sources of scrap metal in order to make up the required 17,000,000 tons to tide the steel mills over the coming winter season.

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One of the greatest sources of high grade scrap is steel rails. Well aware of the importance of this scrap, many of the nation's railroads had inaugurated comprehensive rail salvage programs last week. Among them were:

Nearly 100 miles of rails in the Beardstown, Ill., district were ripped up by the Chicago, Burlington and Quincy Railroad; the Pennsylvania Railroad announced that nearly 60,000 tons of steel rail had been made available to the scrap pile—a greater part of this being released as a result of the relaying of main line trackage with new rail, much of it of heavier sections, in view of the greatly increased traffic.

On the trolley rail front, more than 1,500 tons of high grade scrap from long abandoned trolley and interurban lines in and about Baltimore was to be undertaken by the Works Progress Administration, and in Nassau County, N. Y., the federal government took possession of seven parcels of abandoned street car trackage in the county, aggregating about 500 tons of steel.

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The Navy Department has announced that the old battleship Oregon, a historical relic of the Spanish American War, will be scrapped to be put in service again as war material.

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A scrap bonanza in the shape of a railroad bridge at the bottom of the Coosa River, near Pell City, Ala., was located by the Alabama highway department and is now being salvaged. The bridge, which collapsed some years ago, is in 20 ft. of water. At Selma, Ala., where Confederate troops threw guns and machines into the river on the approach of Federal armies on April 2, 1865, highway department engineers are at work salvaging this metal.

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A tin smelter at Texas City, Texas, built for the Tin Processing Corporation, is now in full operation and is "exceeding all expectations in production" according to local officials. The plant poured its first tin on April 5 of this year.

Fabricated in 1888, and moved once in its long career as a railroad bridge, this old structure across the Tallapoosa river near Birmingham, Ala., will go into the nation's scrap pile. First erected in Kentucky, the structure was moved to Alabama for a logging railroad. Unused for some years, its 350 tons of steel will be converted to war use.

Inmates of the Arizona state prison who built a highway bridge near Tempe in 1911, recently were asked to dismantle the structure, long since abandoned.

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Engineers at Mineral Wells, Tex., planned the recovery of a long bridge over the reservoir of Possum Kingdom Dam, long submerged under the dam's stored water.

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A Civil War cannon, donated to the scrap drive by the city of Cedar Rapids, Iowa, recently was cut apart. The cannon, built of Swedish grey iron, and used as a coastal defense weapon during its active lifetime, weighed a[illegible] 15 tons.

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In Atlanta, Ga., the Ma[illegible]gall Construction Co. announced it [illegible] gathered about 200 tons of scrap [illegible] from its various projects, and would [illegible]rn it over to scrap authorities.

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Sidewalk superintendents [illegible] Jacksonville, Fla. are having a gal[illegible]ccasion in the city's downtown busine[illegible] district as workmen remove streetcar [illegible]acks from Hogan Street for contribu[illegible]on to the drive. City officials have est[illegible]ated that there is a "superintendent" for almost every one of the 300 men at work on the project.

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Philadelphia, Pa., deeded two old bridges, aggregating about 1[illegible]00 tons of iron and steel to the government.

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Frank L. Oliphant, president of the Vincennes, Ind. Steel Corp., announced that the eight story Peter Pan Hotel—for which the steel was erected a dozen or more years ago—will be taken down and sold to the government. The hotel was never completed, but steel has been kept painted to preserve it.

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The hulks of three railway cars that were wrecked about 15 years ago near Herculaneum, Mo., and which had remained at the scene of the wreck ever since, were cut apart and sent to the scrap pile by the Missouri-Illinois Railroad Co.

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At Lometa, Tex., engineers of the Third Army recently dynamited the abandoned Red Bluff bridge over the Colorado River, to add the bridge's 250,000 lb. of steel to the drive. The 240-ft. structure was built in 1901, at a cost of $150,000.

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Fill California dam supervisor's post

W. H. Holmes, senior engineer of hydraulic structure design in the California State Division of Water Resources, has been appointed supervising engineer in charge of design and safety of dams.

He succeeds the late George W. Hawley, deputy state engineer.

In his new position, Mr. Holmes will supervise the 640 dams under state jurisdiction. These comprise 426 earthfill dams, 40 rockfill, 46 concrete gravity, 6 masonry, 56 single arch, 15 multiple arch and 51 dams of composite or miscellaneous types. Twelve are owned by the state, 186 by municipalities and districts, 128 by power companies and the remainder by individual owners.

Fleming raised to major general, others advanced

The War Department last week submitted to Congress the names of 56 ranking army officers in all branches to be advanced to higher ranks.

Engineers in the group named include Brig. Gen. Phillip B. Fleming, recommended for promotion to rank of major general; Cols. Donald H. Connolly, and William H. Holcombe, recommended for promotion to brigadier general, and Lt. Col. Stanley L. Scott, also for promotion to brigadier general.

General Fleming, who holds the permanent rank of colonel in the Corps of Engineers, has been head of the Federal Works Agency since November, 1941. Previously he had handled the administration of the federal wages and hours law. In 1937 he was co-ordinator of the Resettlement Administration, and before that had been assistant administrator of PWA. A graduate of West Point in 1911, he has served as an instructor at Camp Humphreys engineer school, and as an instructor at West Point, where he was also post engineer and water supply officer.

Gen. Fleming

Colonel Connolly, a West Point graduate, has been head of the Pittsburgh district, U. S. Engineers, and has filled other assignments including work as officer in charge of the first district on the Mississippi River, at Fort Leavenworth, Kan. Colonel Holcombe, formerly district engineer of the Milwaukee engineer district, in charge of river and harbor construction and maintenance of Lake Michigan and tributary waters in Wisconsin and Michigan, and later assigned to Fort Belvoir, Va., graduated from West Point in 1914.

Colonel Scott, recently division engineer of the Southwest division, has since been detached from his work there for an unannounced assignment.

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Canada plans 10 new war industry plants

Canada will construct and operate ten more chemicals and explosives plants—six of them major projects—according to C. D. Howe, Minister of Munitions and Supply.

This will bring the total of such plants in Canada to 38. At present, these plants employ more than 50,000 persons and in 1942 produced an estimated $110,000,000 worth of material.

Julius Kahn dies, was Truscon Steel founder

Julius Kahn, 68, founder of the Truscon Steel Co., of Youngstown, Ohio, and formerly a vice-president of Republic Steel Corp., died Nov. 4 at Cleveland.

Widely known for the Kahn system of concrete reinforcement in industrial buildings, Mr. Kahn organized Truscon Steel in 1903. After the company merged with Republic Steel in 1935, he served as director and vice-president of that corporation until his retirement in 1939.

He was born in Munstereiffel, Germany, and came to this country as a child. He graduated in 1896 as a civil engineer from the University of Michigan, where he taught civil engineering for a time after his graduation. He was a brother of Albert Kahn, widely known Detroit industrial architect.

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Protest state's right to withhold road funds

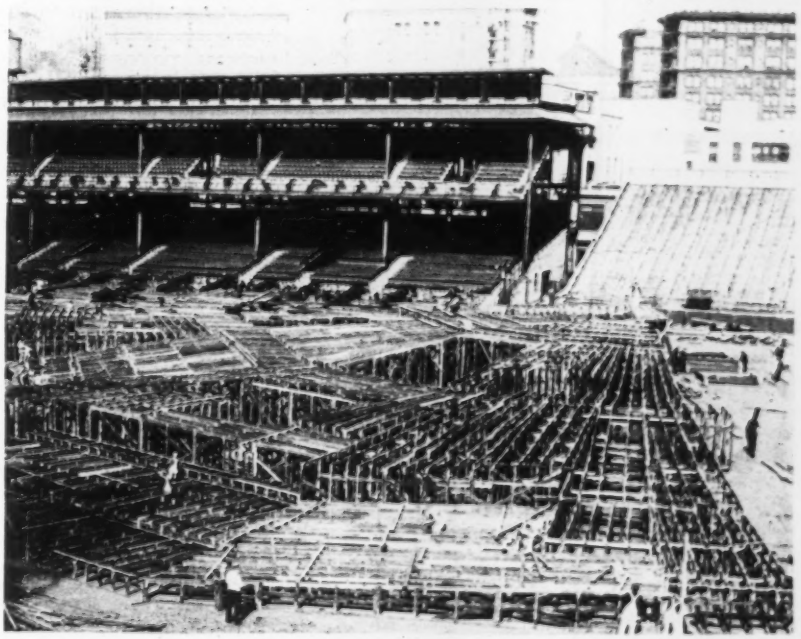
Pulaski County, Arkansas, has announced it will contest an act of the 1941 state legislature that penalizes counties which fail to procure right-of-way for state highways, by deducting one-half the cost of acquiring a right-of-way from funds due the county from gasoline and other taxes.

The Arkansas Highway Commission recently adopted a resolution asking the state treasurer to withhold about $6,000 due Pulaski County, on the ground that the county court failed to procure right-of-way for an overpass on Highway 65.

Under the legislative act, county courts are required to order procurement of a right-of-way within 60 days after being petitioned to do so by the state highway commission. If the court refuses to act, the commission is then empowered to proceed on its own initiative, taking one-half of the cost from the next payment due the county from taxes.

Pulaski County Deputy Prosecuting Attorney Harry Robinson said the county would contend the act was unconstitutional in that the county courts are given constitutional jurisdiction to determine whether a road is necessary, and the act takes that jurisdiction from the court.

PLANS for hospital facilities to cost a total of $525,000 in three key towns on the coast of Vera Cruz state, on the Gulf of Mexico, have been presented by the Public Welfare Ministry. The hospitals are to be in Minatitlan, Coatzacoalcos, and Tuxpan.



Pittsburgh Post-Gazette Photo

Biggest stage built for war show

Said to be the largest stage in the world, this 286x240 ft. structure was built in three days to house a war pageant in Forbes Field, Pittsburgh, Pa.

Built entirely of wood, the job employed 55 carpenters and 100 laborers, who worked overtime and double time to complete the stage in time for the pageant. The structure had numerous stage levels and was constructed "from the top down" with the highest level being built first and successively lower ones built thereafter.

OBITUARY

Raymond E. Toms, 55, chief of the division of design of the Public Roads Administration, Federal Works Agency, who was in charge of the Mount Vernon Memorial Highway, died Nov. 4 in Washington, D. C. One of the country's best known highway engineers, Mr. Toms for several years had directed the design of federal-aid roads in cooperation with state highway departments.

Carolus Morton Broomall, 72, civil engineer of Media, Pa., died there Nov. 1. He had been an instructor in civil engineering at Drexel Institute, Philadelphia, and was borough engineer for Swarthmore, Pa., at his death.

Alexander Ross Robertson, 54, Toronto engineer and industrial executive, died at Toronto on Nov. 4. At his death, he was manager of the Ontario division for the Dominion Bridge Co., Ltd.

Maurice Cotter, 50, an engineer with the Reconstruction Finance Corp., died Nov. 7 in New York City.

Horace Greeley Pomeroy, 68, mining and civil engineer, died Oct. 29 at San Francisco, Calif. He was engineer on the East Bay water project in Oakland, and for the Georgia Light & Power Co. dam in Georgia, among numerous other projects.

William W. Wells, of Logansport, La., a construction engineer, died recently at Orange, Tex.

Blair Craig, 37, a civil engineer with the Sun Oil Co., died Oct. 26 at Philadelphia.

James Simon, 66, retired construction engineer of Shreveport, La., died recently at his home. He was formerly city engineer for Shreveport.

James B. Dobie, 69, dominion and provincial land surveyor, died at Blind River, Ont., Oct. 28.

Donald S. McCalman, 63, assistant city engineer for St. Louis, Mo., from 1933 to 1941, died on Oct. 21 at Greenville, Ill., where he was working on a construction project.

Franklin H. Mann, 62, assistant chief engineer of the Iowa state highway commission, died at Ames, Iowa, Oct. 29. A graduate of the University of Wisconsin, Mr. Mann was a railroad engineer in British Columbia until 1907, and during his career served in engineering capacities throughout the East. He had been with the Iowa commission since 1914.

George Washington Craig, 72, civil and construction engineer, died Nov. 4 at Evanston, Ill. Mr. Craig had served as city engineer of Omaha, Neb., was city manager of Calgary, Alberta, Canada, and came to Evanston nearly 20 years ago as commissioner of public works.

George Frederick Maddock, 71, former manager of the Sutter Basin Co. in Sacramento and a civil engineer, died at Stockton, Calif., Oct. 28.

T. Ronneberg, retired San Francisco structural engineer, died at Los Angeles Nov. 3. He had been structural engineer on the telephone building, the Empire Hotel and the Hobart building in San Francisco.

Fred A. Powell, 71, ... engineer ... Louisville, Ky., died N... 4.

John W. Lowe, supe... ndent of ... Millington, Tenn., mun... al water plan... died Oct. 30.

Arthur A. Wallace, 65, ... many years superintendent of streets ... head of the department of public ... ks at Keene, N. H., died at Keene No... 3.

John Gordon Joyner, ... contractor ... Brunswick, Ga., died the... Oct. 30.

A. A. Arnould, 82, retired building contractor of Davenport, Iowa, died there Oct. 30.

CONTRACTS AND CAPITAL

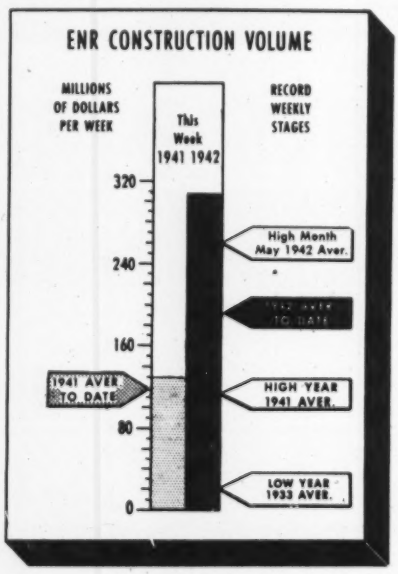
ENGINEERING CONSTRUCTION volume for the week totals $304,221,000, the fourth highest weekly value ever reported. The week's total is 134 percent above the volume for the corresponding week last year, and more than double the $137,412,000 reported for the holiday-shortened preceding week.

Federal construction makes up 96 percent of the current week's volume and is triple the 1941 week's total. It is responsible for the 161 percent increase in public work, as state and municipal work is 64 percent below a year ago. Private construction declines 54 percent from last year.

The current week's construction brings 1942 volume to $8,766,218,000, a gain of 62 percent over the $5,424,579,000 reported for the 46-week period in 1941. Private construction, $527,884,000, is 52 percent below last year, but public work, $8,238,334,000, is 90 percent greater than a year ago as a result of the 140 percent increase in federal volume.

Unclassified construction climbs to its highest peak in history, due primarily to a contract for the laying of a pipeline to the East Coast. In addition to unclassified work, waterworks, sewerage, public buildings, earthwork and drainage, and streets and roads gain over a week ago; and waterworks, sewerage, public buildings, and earthwork and drainage increase over a year ago.

New capital for construction purposes for the week totals $30,275,000, an increase of 13 percent over the 1941 week. The current financing volume is made up of $275,000 in state and municipal bond sales, $4,000,000 in corporate security issues, and $26,000,000 in RFC loans for industrial construction.



CONTRACTS

(Thousands of dollars)

	Week Ending Nov. 13 1941	Nov. 5 1942	Nov. 6 1942
Federal	$ 97,210	$125,040	$296,768
State & Municipal	16,360	3,868	7,854
Total public	$113,570	$128,908	$296,622
Total private	16,590	8,504	7,599
TOTALS	$130,160	$137,412	$304,221
Cumulative 1942 (46 weeks)			$8,766,218
1941 (46 weeks)			$5,424,579

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1941 46 weeks	1942 46 weeks
NON-FEDERAL	$1,294,565	$820,605
Corp. Securities	338,777	174,489
State & Mun.	392,358	206,000
U.S.H.A. loans	30,399	
R.E.A. loans	100,500	
R.F.C. loans	269,531	156,457
Fed.-Aid—Highways	163,000	82,750
FEDERAL	$4,951,118	$8,366,838
TOTAL CAPITAL	$6,245,683	$9,587,555

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost	Nov. '42	283.64	130.55
Building Cost	Nov. '42	226.58	122.48
Volume	Oct. '42	421	185

FHA MORTGAGES

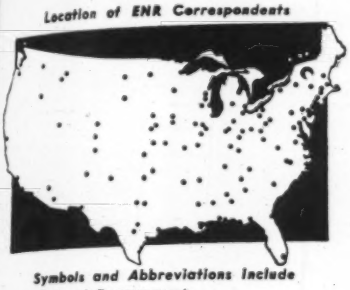
	Week Ending Nov. 8 1941	Oct. 31 1942	Nov. 7 1942
Selected for appraisal			
Title II	$18,670	$4,987	$4,315*
Title VI	$3,948	$14,079	$9,960*

*Subject to revision.

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

Location of ENR Correspondents



Symbols and Abbreviations Include

† Federal Government
★ Project of $500,000 or over
ENR Engineering News-Record
CD Engineering News-Record Construction Daily
A-E-M Architect — Engineer-Management type of contract.

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger; water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction

(Named in order of Listing)

Water Supply
Sewers, Waste Disposal
Bridges, Grade Cross'gs
Streets & Roads
Earthwork, Waterways
Unclassified
Latin America
Public Buildings
Commercial Buildings
Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):

BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR):

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Note: To comply with censorship requirements, addresses on some reports are being generalized. Data which would reveal the purpose of the improvements and the size are withheld. The name of contractor and general area are reported.

WATER SUPPLY

PROPOSED WORK

†Conn., New Britain—City, Dpt. P. Wks., City Hall, WW, 4 wells near Wolcott Reservoir, Southington Valley pipe lines to 71 artesian wells and Wells White's Bridge, $285,000. **FWA.** G. Molleur, City Hall, engr.

Ill., Chicago—Dpt. P. Wks. rejected bids June 29, chemical bldg., South Dist. Filtration Plant. CD 7/6 under LB.

Nev., Ely—$250,000 bond election, Nov. 30, purchasing, imprv. Ely Water Co. System.

†N. C., Burlington—Federal Works Agency, 606 State Planters Bldg., Richmond, Va., installing 2,500 ft. 6 in. water mains, 3,500 ft. 8 in. sewers. $16,735.

†S. D., Provo—Town, 13,000 gal. cistern. $15,000. FWA allot.

†Texas—U. E. Eng., 231 W. Main St., Denison, engineer-architect services by Thomas, Sharp, Welch & Goodwin, Constr. Bldg., Dallas, water supply and sewage disposal plant, Collin Co.

†Tex., Kingsville—City, c/o Mayor, WW imprvs., Tex. 41-515. $89,150. **FWA.** Peurifoy & Patterson, Box 1321, engrs. CD 5/1—ENR 5/7.

†Wash., Vancouver—Federal Works Agency, Alaska Bldg., Seattle, well, pumphouse, Clark Co. $17,250.

†Pacific Northwest—U. S. Eng., 800 3 Ave., Seattle, Wash., water supply line.

N. B., Fredericton—300,000 gal. reservoir. R. T. Forbes, mayor.

N. B., Fredericton—University of New Brunswick, Fredericton, 80,000 gal. reservoir.

Ont., Weston—H. G. Musson, town clk., bids soon, new well, 2,600 ft. 8 in. c.i. main, aeration and iron removal plant. $36,500.

Que., Montreal—Pump house, etc. $25,000. D. Beaupre, City Hall, engr.

BIDS ASKED

Bids Asked November 19

†Wash., Bremerton—E. J. McCall, city clk., City Hall, 9,380 ft. c.i. pipe and specials, for water syss. imprvs. Plans deposit $5. **FWA.** C. C. Casad, City Hall, water supt.

Bids Asked January 5

†Pennsylvania—Veterans Admin., Vermont Ave. between H and I Sts. N. W., Wash., D. C., drilling, developing, testing deep well.

Bids Asked

†Texas—U. S. Eng., 231 W. Main St., Denison drilling, casing, developing water supply well, Smith Co. Over $15,000. Plans deposit $50.

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, WW, sanitary sewerage sys., gas lines, etc., Cameron Co. Over $15,000. Plans deposit $50.

★**†Tex., Houston**—City, c/o C. A. Pickett, mayor, City Hall, water supply plant on San Jacinto River, 25 mi. from here, incl. 2 canals, 2 pump. stations, piping and two 1,630,000,000 gal. earthen reservoirs. $2,100,000. **FWA.** J. C. McVea, city engr. CD 11/5.

LOW BIDDERS

†Calif., Santa Monica and **Los Angeles**—Federal Works Agency, 1206 Santee St., Los Angeles, Oct. 30, 12,940 lin. ft. 16 and 20 in. concrete, steel water supply line, from United Concrete Pipe Corp., 1347 W. 208 St., Los Angeles, **$158,817.**

†Kansas—Pub. Housing Auth., NHA, Dierks Bldg., Kansas City, Mo., water reservoirs, pump house for housing, Sedgwick Co., from Martin K. Eby Constr. Co., 850 Litchfield St., Wichita, Overend & Boucher, Brown Bldg., Wichita, archts.

★**†N. C., Wilmington**—City, Nov. 4, King's Bluff water supply, Project WPW 31-119, from Price Bros. Co., 1932 E. Monument St., Dayton, O., concrete pipe for 22 mi. waterline, **$1,012,089**; pump. sta., **$120,700***** from Espy Paving & Constr. Co., 108 E. Bay St., Savannah, Ga., c.i. pipe, **$1,151,251. FWA.** CD 10/20—ENR 10/22.

CONTRACTS AWARDED

†Alabama—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, water and sewer utilities, Inv. 569-42-276, Lee Co., to Blount-Holt Co., Montgomery. Est. **$40,000.**

†Alabama—U. S. Eng., Custom House, Mobile, WW, and sewerage, Pickens Co., to J. B. Owens, 4011 1st Ave. N., Birmingham, less than **$100,000.**

†Arizona—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., water supply sys., Pima Co., to J. S. Sundt, P. O. Box 2592, Tucson, less than **$100,000.** Awarded 10/30.

†Florida—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., deep well, incl. motor pump, Escambia Co., to Layne-Central Co., 1993 Chelsea Ave., Memphis, Tenn., under **$50,000.**

†Florida—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, water and sewerage facilities, Hillsborough Co., to The Boyce Co., Clearwater, under **$50,000.** Awarded 10/24.

†Florida—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, drilling wells, installing pumps, Inv. Neg-Jax-B.W.-43-1, Polk Co., to M. R. Vaughn, 6018 Orange Blossom Ave., Tampa, under **$50,000.** Awarded 10/22.

†Georgia—U. S. Eng., Post Office Bldg., Savannah, limestone wells with complete pump. equip., Liberty Co., to Virginia Machinery & Well Co., Inc., 731 Catherine St. S.W., Atlanta, under **$50,000.**

†Georgia—U. S. Eng., Post Office Bldg., Savannah, water distr. sys., Liberty Co., to Nichols Contg. Co., 1190 Caroline St. N.E., Atlanta, under **$50,000.**

†Ia., Ottumwa — Water facilities, to Dan Christensen Constr. Co., 417 1 Ave. S.E., Cedar Rapids, **$88,374. FWA.** CD 10/27—ENR 10/29.

†Maryland—U. S. Eng., Standard Oil Bldg., Baltimore, electrical work for filtration plant, Harford Co., to C. D. West, 415 Lexington Ave., New York, N. Y., **$3,000.** CD 9/17—ENR 9/24 under CA.

★**†Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, water and sewer mains, septic tanks, Wayne Co., to R. D. Baker, Box S, College Park Station, Detroit, less than **$1,000,000.**

†New Jersey—U. S. Eng., 6 and Walnut Sts., Phila., Pa., water distr. and sewerage sys., appurtenant structures, Cumberland Co., to W. G. Fritz Co., Inc.; 69 Main St., West Orange, **$50,000-$100,000.**

†New Jersey—U. S. Eng., 6 and Walnut Sts., Phila., Pa., well, incl. appurtenances, Burlington Co., to Layne-New York Co., Inc., 92 Liberty St., New York, N. Y., under **$50,000.**

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, construction and completion wells, Richmond Co., to Carolina Drilling & Equipment Co., Inc., Sanford, **$100,000-$500,000.**

†Ohio—U. S. Eng., 232 N. High St., Columbus, erecting tank, Wood Co., to Joseph Bucheit & Sons Co., 819 Mahoning Ave., Youngstown, under **$50,000.**

†Pennsylvania—U. S. Eng., Standard Oil Bldg., Baltimore, Md., storage reservoir, pumphouse, valve vault and water supply mains, Lancaster Co., to C. W. Good, Inc., Lancaster, **$50,000-$100,000.**

†R. I., Middletown—Federal Works Agency, 2 Lafayette St., New York, N. Y., filtration plant, reservoir, to Hass Engineering Co., Birmingham, Mich. **$468,075.**

†Texas—U. S. Eng., Fort Sam Houston, exten. water supply line, Spec. 42-543, Bexar Co., to Truehart, Caldwell & Lee, Builders Exchange Bldg., San Antonio, under **$50,000.** Bids 10/17, awarded 10/29. CD 10/13.

†Texas—U. S. Eng., Fort Sam Houston, pump. sta. and facilities, Bowie Co., to E. Lloyd, Fort Worth, **$100,000-$500,000.**

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, exten. water, sanitary sewer, natural gas sys., Harris Co., to Tellepsen Constr. Co., 3300 Clay St., Houston, **$50,000-$100,000.** CD 10/30—ENR 11/5.

†Washington—U. S. Eng., 810 3 Ave., Seattle, well, Grant Co., to R. C. McClintock, 416 W. 2 St., Spokane, under **$50,000.**

†Washington—U. S. Eng., 800 3 Ave., Seattle, water, sewer and lighting sys., Clallam Co., to Sullivan, Lynch & Hainsworth, 1822 McGilvra Blvd., Seattle, under **$50,000.**

†Washington—U. S. Eng., 800 3 Ave., Seattle, WW sys., Snohomish Co., to Washington Lumber Co., 3447 4 Ave. S., Seattle, under **$50,000.**

†Washington—U. S. Eng., 800 3 Ave., Seattle, water supply line, Spokane Co., to Lord & Loryea, 4507 S.E. Milwaukie St., Portland, Ore., **$50,000-$100,000.**

†West Virginia—U. S. Eng., Chesapeake & Ohio Bldg., Huntington, furnishing, erecting steel tanks, to General American Transportation, Sharon, Pa., under **$50,000**; constructing concrete bases for tanks, to A. G. Higginbotham, Chas. Natl. Bank Bldg., Charleston, under **$50,000**, both in Mason Co.

Wis., La Crosse — Chicago, Milwaukee, St. Paul & Pacific Ry., W. H. Penfield, ch. engr., Union Sta., Chicago, Ill., 1 story, 28x50 ft., frame lime soda water treating plant, to Hugh Davey & Son, Mason City, Ia.; equip., to Johnson Machine Wks., Chariton, Ia. Total est. **$25,000.**

Wis., New Lisbon — Chicago, Milwaukee, St. Paul & Pacific Ry., W. H. Penfield, ch. engr., Union Sta., Chicago, Ill., 1 story, 28x50 ft lime soda water treating plant, also 20x36 ft. wood tank, to Hugh Davey & Son, Mason City, Ia.; equip., to Johnson Machine Wks., Chariton, Ia. Total est. **$25,000.**

Alta., Pearce—Dpt. Natl. Defense for Air, Ottawa, Ont., water and sewer mains, Air Observers School, to General Constr. Co., Ltd., Claresholm, **$45,000.**

Man., La Prairie—Dpt. Natl. Defense for Air, Ottawa, Ont., watermains, sewers, A. O. School 7, to Henry Borger & Son, Ltd., 194 Osborne Ave., Winnipeg, **$18,000.**

Man., Winnipeg—Dpt. P. Wks., Ottawa, Ont., pump. plant at Deer Lodge Hospital, to Bowyer-Boag Ltd., 45 Olivia St., Winnipeg, about **$25,000.** C. D. Sutherland, c/o owner, archt. Bids 9/22. CD 9/10—ENR 9/17.

Ont., Mohawk — Dpt. Transport, Ottawa, water supply works, 8 in. intake pipe, pump house, intake well, S.F.T. School R 1 to Trenton, to Industrial Constr. Co., Ltd., Windsor, about **$35,500.**

Ont., St. Eugene—Dominion Govt., Ottawa, exten. water sys., to Bertrand & Bro., 7 Main

WATER SUPPLY (Contracts Awarded, Cont'd.)

St., Hawkesbury, **$35,000.** Dpt. National Defense for Air, Ottawa, engrs.

Que., St. Johns—H. Morais, city clk., filtration plant addn., reservoir, to J. E. Benoit, 110 Champlain St. Est. **$50,000.** CD 10/13—ENR 10/15.

SEWERS, WASTE DISPOSAL

PROPOSED WORK

California — Industrial Company, sanitary sewers, to Jas A. Nelson, Inc., 1375 Howard St., San Francisco.

†California—U. S. Eng., 751 S. Figueroa St., Los Angeles, engineer-architect services by A. H. Koebig, Jr., 2404 8 Ave., Los Angeles, sewage treatment plant, Kern Co.

†Conn., New Britain—City, Dpt. P. Wks., City Hall, 3,200 ft. 18 in. sanitary sewers, reinforcing 776 ft. 8 and 10 in. sewers. $35,000. **FWA.** G. Molleur, city engr. CD 7/15—ENR 7/23.

†Conn., Stratford—Town, D. McLeod, acting town mgr., Town Hall, sewer project, pump. sta., Lordship; outfall sewer from present plant to Housatonic River; interceptor sewer from King and Broadbridge to Main St., on Linden and West Broad Sts. **FWA.** T. F. Bowe, 110 William St., New York, N. Y., consult. engr.

★**Tenn., Memphis**—Enlarging sewage treatment plant, $250,000; constructing intercepting sewer, $500,000.

Tex., Fort Worth—S. H. Bothwell, city mgr., sewer imprvs., enlargement. $232,735. Freese & Nichols, Capps Bldg., engrs. Applied for FWA funds.

†Tex., Texarkana — City, W. V. Brown, mayor, addnl. sewerage sys. imprvs. $74,700. **FWA.** J. Montgomery, Littlefield Bldg., Austin, engr.

†Pacific Northwest—U. S. Eng., 800 3 Ave., Seattle, Wash., sewers, water supply and distr. sys., Inv. 209; 10 ton incinerator, Inv. 211.

Ont., Crowland—Bids soon sewer in Sauer Ave., watermains in Lincoln, Southworth and Cross Sts., 1, 2, 3, 4, 5, and 6 Aves. **$35,000.**

Ont., Sault Ste Marie—Rein-con. brick incinerator. **$35,000.** E. E. Smith, City Hall, engr.

Que., Hull—City Clerk, bids soon, sewer extens., street paving, sidewalks. $85,000. T. Lanctot, City Hall, engr.

BIDS ASKED

Bids Asked November 18

†Md., Hyattsville — Washington Suburban Sanitary Comn., Hamilton St., 7,740 ft. 24 in. vitr. sewers, Contr. 162-S. Plans deposit $5. H. R. Hall, ch. engr.; adv. ENR 11/12.

Bids Asked November 19

†Ind., Connersville — Pub. Bldgs. Admin., North Interior Bldg., Wash., D. C., storm water drainage. **FWA.**

†Mo., St. Louis—Federal Works Agency, 507 U. S. Court House & Custom House, 1114 Market St., installing incinerator in old custom house, 8 and Olive Sts.

S. D., Sioux Falls—C. M. Whitfield, city aud., imprv. sewage treatment plant, structures, piping, pump equip., rotary distributor and sedimentation tank mechanisms. Greeley & Hansen, 6 N. Michigan Ave., Chicago, Ill., engrs.

Bids Asked November 23

†Mo., Neosho—City, G. Woods, mayor, sewage disposal plant DPWA 10-30. $262,000. **FWA.** H. Lawrence, 3244 N.W. 14 St., Oklahoma City, Okla., engr.

LOW BIDDERS

Calif., Salinas—F. E. Heple, city clk., Nov. 2, intercepting outfall sewer from Alisal to sewer plant, from V. C. K. Constr. Co., 5629 Via Corona St., Los Angeles, **$204,507.** CD 10/27.

†Louisiana—U. S. Eng., foot Prytania St., New Orleans, sanitary sewerage sys., Inv. 43-160, from Barnet Brezner, Alexandria. CD 10/26.

N. Y., Deer Park—Dpt. Mental Hygiene, State Office Bldg., Albany, sewage pump. sta., Edgewood State Hospital, from Consolidated Water Works Corp., 5-25 51st Ave., Long Island City. **$144,333.**

†Texas—U. S. Eng., Fort Sam Houston, Oct. 27, sewage disposal plant addns., Spec. 42-483 (T2-1), Kinney Co., from L. Fikes, Gulf States Bldg., Dallas. CD 10/23.

†Wash., Renton—City, City Hall, Nov. 3, paving 4 Ave., Park St. W., Logan St. and Bronson Way, from Northwest Constr. Co., 3950 6 Ave. N.W., Seattle, **$114,889. FWA.** CD 10/19—ENR 10/22.

CONTRACTS AWARDED

†Calif., Richmond—Federal Works Agency, 49 4 St., San Francisco, intercepting sewers, Docket Calif. 4-333. Schedules 2 and 3, to W. J. Tobin, 5708 Glenbrook Dr., Oakland. No bids received Oct. 14, Schedule 1. Bids 10/14. CD 10/20—ENR 10/22 under LB.

†Florida—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., 2 sewage lift stations, water and sewer lines, Okaloosa Co., to Mason & Dulion Co., 3024 3rd Ave. S., Birmingham, Ala., under **$50,000.**

†Georgia—U. S. Eng., Post Office Bldg., Savannah, sanitary sewerage sys., Liberty Co., to T. H. Pearce Co., Brookhaven Rd., Columbus, under **$50,000.**

†Georgia—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., sewage treatment plant, Chattahoochee Co., to Capitol Constr. Co., 157 Cain St. N.W., Atlanta. **$100,000-$500,000.**

†Ga., Macon—Federal Works Agency, 20 5 St. N.W., Atlanta, outfall sewer, to Jr B. McCrary Co., 22 Marietta St. Bldg., Atlanta, **$332,698.**

†Idaho—U. S. Eng., Pittock Blk., Portland, Ore., sewage disposal plant, Ada Co., to C. F. Davidson Co., 2906 S. 9 St., Tacoma, Wash., under **$50,000.**

†Illinois—U. S. Eng., 800 U. S. Court House & Custom House, St. Louis, Mo., sewage disposal plant, appurtenances, equip. and auxiliary piping, etc., Negotiation No. 1103-43-78, Jefferson Co., to Brockmeyer Constr. Co., 634 N. Grand Blvd., St. Louis. Est. under **$50,000.** Bids 10/27. CD 10/23.

†Indiana—U. S. Eng., Federal Bldg., Louisville, Ky., sanitary sewers, water supply line and distr. sys., Bartholomew Co., to Birmingham Contg. Co., 184 Fairfax Ave., Birmingham, Mich., **$100,000-$500,000.**

†Kansas—U. S. Eng., 10 E. 17 St., Kansas City, Mo., sewage treatment plant, Dickinson Co., to D. Rhoades Constr. Co., Newton, under **$50,000.**

†Louisiana—U. S. Eng., foot of Prytania St., New Orleans, sewage treatment plant, Inv. 43-144, to T. Miller & Sons, Lake Charles. Awarded 10/28.

†Massachusetts—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., storm drainage, Hampden Co., to Edward M. Matz, Inc., 101 Moraine Ave., Boston, **$100,000-$500,000.**

★**†Michigan**—U. S. Eng., 709 Union Guardian Bldg., Detroit, sanitary sewers, sewage pump sta., force main, water supply line and distr. sys., Washtenaw Co., to McManus & Mickelsen, 3340 Fenkel St., Detroit, less than **$1,000,000.**

†Pennsylvania — U. S. Eng., Standard Oil Bldg., Baltimore, Md., excavation, grading in connection with sewage disposal plant construction, Cumberland Co., to C. W. Good, Inc., 726 Columbia Ave., Lancaster, under **$50,000.**

†Tennessee—U. S. Eng., P.O. Box 97, Memphis, outside sewer lines, and water distr. sys. for temporary frame bldgs., Shelby Co., to R. J. Reid, 2109 N. 14 St., Birmingham, under **$50,000.**

†Texas—U. S. Eng., 231 W. Main St., Denison, sewage treatment plant, and water storage and pump. facilities, Spec. 257-43-100, Gray Co., to Ramsey Bros., P. O. Box 562, Amarillo **$100,000-$500,000.** Awarded 11/3. CD 10/13—ENR 10/15.

†Utah, Ogden—Federal Works Agency, Utah Oil Bldg., Salt Lake City, 10,000 ft. sanitary sewer, South Ogden, to Gibbons & Reed, 259 W. 3rd South St. and Enoch Smith Sons Co., 567 1 St., both Salt Lake City, **$66,520.** Bids 10/23.

†Washington—U. S. Eng., 800 3 Ave., Seattle, sewerage sys., Spokane Co., to R. L. Blair, 1220 Ide St., Spokane, **$100,000-$500,000.**

†Wyoming—U. S. Eng., 1709 Jackson St., Omaha, Neb., laundry waste treatment plant and addns. existing sewage, Laramie Co., to C. M. Smith, Thermopolis, under **$50,000.**

BRIDGES, GRADE CROSSINGS

PROPOSED WORK

Ont., Islington—Etobicoke Twp., S. Barratt, clk., Islington, 62 ft. bridge over Mimco Creek. $25,000. F. McArthur, Islington, engr.

Quebec—Provincial Govt., Quebec City, bridge over Nicolet River, St. Monique. $35,000. Dpt. P. Wks., Quebec City, engr.

BIDS ASKED

Bids Asked November 17

Iowa—State Hy. Comn., Ames, 3 concrete box culvert extens., twin concrete arch culvert, etc., on Iowa 92, P-495 and P-28, Adair Co.; 2 concrete box culvert extens., Iowa 155, FN 520-A and FN-26, Adams Co.; one 20x28 ft. I-beam approach span to present 20x80 ft. pony truss over Salt Creek, Iowa 34, FN-15, Mills Co.; 2 concrete box culvert extens., Iowa 48, P-264 and P-27, Page Co. F. R. White, Ames, ch. engr.

LOW BIDDERS

Indiana—State Hy. Comn., Indianapolis, Oct. 29, 2 bridges, Marion Co., from Smith & Johnson, 1799 Kentucky Ave., Indianapolis, **$69,037,** est. $74,223. Rejected bids bridge, Jackson Co., will readvert[illegible] 10/22.

CONTRACTS AWARDED

Calif., Needles—Atchison[illegible] Fe Ry. System, M. C. [illegible] 560 S. Main St., Los Ang[illegible] bridge across Colorado R[illegible] Bridge Co., 215 Perishing[illegible] Mo.

Iowa—State Hy. Comn.[illegible] box culvert extens., Monona[illegible] Bros., Sioux City, **$40,415.** [illegible] bids Nov. 4, 6 in tile Dr[illegible] Co. CD 10/23—ENR 10/29.

Oklahoma—State Hy. Dp[illegible] bridge over Salt Creek, ne[illegible] Co., to R. R. Tway, 710 E[illegible] City, **$24,737.** Est. $12,301 [illegible] ceived no bids Oct. 27, bri[illegible] $49,652. CD 10/20.

Quebec—Dpt. Roads, Que[illegible] rein.-con. span over Little [illegible] St. Cyprien, Napierville Co., to Fortin et Fr[illegible] Ltd., Hemmingford, **$36,780.**

Quebec—Dpt. Roads, Quebec City, grading graveling 45 mi. Sir Wilfrid Laurier H[illegible] near Drummondville, to Eastern Canada Constr. Co., Ltd., 548 King St. W., Sherbrooke, **$76,713.**

STREETS AND ROADS

BIDS ASKED

Bids Asked November 16

New Jersey—S. Miller, Jr., comr. State Hy. Dpt., Trenton, grading, concrete on concrete and macadam paving 2.058 mi. Route 4 (1) Sect. 16 Bway. from Brooklawn to New Creek and Jersey Ave. from 5 to King St., Brooklawn Boro, City of Gloucester, Camden Co.; adv. ENR 11/12.

Bids Asked November 17

Iowa—State Hy. Comn., Ames, concrete paving, sidewalks, storm sewers, etc., on 2 mi. 4 St., Clinton, D.A.-WR-7, Clinton Co.; F. R. White, Ames, ch. engr.

N. Y., New York—President Bronx Boro, Bronx County Bldg., 851 Grand Concourse, asphalt block on concrete repaving Park East from Prospect Ave. to Crotona Park North, No. 7656; brick on concrete repaving E. 136 St., No. 7616; E. 176 St., No. 7922.

Bids Asked November 20

N. Y., Brooklyn—President Brooklyn Boro Hall, permanent asphalt on concrete repaving Bay Ridge Parkway, Gold and 23 Sts., curbing, flagging E. 33 and E. 34 Sts., grading lots on south side 97 St. between 4 Ave. and Fort Hamilton Parkway and on east side of 4 Ave., between 97 St. and Marin Ave., known as Lots 11 and 20, Block 6127, Sect. 18.

Bids Asked November 24

Ill., Riverdale—At office Village Clerk, concrete paving 134 St., Halsted to Perry Ave., Sect. 6-CS. Plans deposit $5; adv. ENR 11/12.

Bids Asked

Alabama—State Hy. Dpt., Montgomery, rejected bids Oct. 23, imprv. 2.908 mi. Colbert Co.; 0.3 mi. Dale Co. Will readvertise. CD 10/28—ENR 11/5, under LB.

Connecticut—W. J. Cox, comr. State Hy. Dpt., Hartford, rejected bids Oct. 19, imprv. roads, Brooklyn, Columbia and Windsor Locks. CD 10/12.

Nevada—Dpt. Hys., Carson City, rejected bids Oct. 15, imprv. 5.61 mi. Clark Co. CD 10/20—ENR 10/22 under LB.

North Carolina—State Hy. & P. Wks. Comn., Raleigh, rejected bids Oct. 14, imprv. 3.24 mi. New Hanover Co. Will readvertise. CD 10/16—ENR 10/22, under LB.

LOW BIDDERS

California—State Div. Hys., Sacramento, Nov. 4, imprv. 2.4 mi. Mendocino Co., from N. M. Ball Sons, Box 430, Berkeley, **$393,488.** CD 10/16—ENR 10/22.

Calif., Los Angeles—City, Oct. 28, grading, concrete paving 212,377 sq. yd. Alameda St., Anaheim to B Sts., from Griffith Co., 502 Los Angeles Ry. Bldg. **$79,135.** L. Aldrich, City Hall, engr.

★**Florida** — State Road Dpt., Tallahassee, Oct. 29, imprv. approx. 9 mi. Lake and Orange Counties, also 1 mi. Hillsborough Co., from W. L. Cobb Constr. Co., 1102 22 St., Tampa, **$725,004** and **$29,254** respectively; 7.35 mi. Duval Co., from H. E. Wolfe Constr. Co., St. Augustine, **$514,702.** CD 10/26.

Illinois—State Dpt. P. Wks., Div. Hys., Springfield, imprv. 6.47 mi. Lee Co., from E. M. Melahn Constr. Co., Algonquin, **$144,839;** 2.56 mi. Monroe Co., from Blackwell Corp., 2006 St. Clair Ave., East St. Louis, **$298,815.** CD 10/27.

STREETS (Low Bidders, Cont'd.)

Indiana—State Hy. Comn., Indianapolis, Oct. 29, imprv. 0.792 mi. St. Joseph Co., from Rieth-Riley Constr. Co., Goshen. **$142,-**638. Est. $147,344. CD 10/22.

★**Kentucky**—Dpt. Hys., Frankfort, Nov. 6, misc., 10.221 mi. Henderson Co., from Smith Constr. Co., Berea, **$177,815*****9.228 mi. Trimble Co. from R. R. Dawson, Bloomfield, **$99,809*****12.342 mi. Hart and Larue Counties, from Codell Constr. Co., Winchester, **$23,801.** CD 10/19—ENR 10/22.

Missouri—State Hy. Comn., Jefferson City, Oct. 29, imprv. 1.346 mi. Route 77 TR-FA 964-A(1) road from Telegraph Rd. to bridge over Mississippi River, from Fred Weber, Jr., near Alabama Ave., St. Louis, Type 1 **$188,-**929, Type 2 **$174,145.** CD 10/20—ENR 10/22.

★**New York**—State Dpt. P. Wks., Div. Hys., Albany, Oct. 28, imprv. road, Clinton Co., from Louie Longhi, Glens Falls, **$129,537*****from Louie Longhi, Glens Falls, **$129,537*****from Jefferson Co., from Bero Eng. & Constr. Corp., Orchard Park Rd., W. Seneca St., Buffalo, **$472,745*****Jefferson Co., from Serafini Constr. Co. Inc., Conklin Rd., Binghamton, **$588,421**, from St. Lawrence Co., from Harrison Contr. Co., 1101 Western Ave., Pittsburgh, Pa., **$244,465*****Niagara Co., from Antonio Ferreira, Jamaica, **$62,246.** CD 10/13—ENR 10/15.

North Carolina—State Hy. & P. Wks. Comn., Raleigh, Nov. 5, imprv. 2.69 mi. Wayne Co., from Lavender Bros., Earl, **$58,612.** Est. $25,000-$50,000. CD 10/27—ENR 10/29.

Oregon—State Hy. Comn., Pub. Serv. Bldg., Portland, Nov. 5, imprv. road Columbia Co., from J. Wilson, Seaside **$37,840;** road, Lincoln Co., from D. F. Alltree, Agate Beach. Received no bids imprv. roads Baker, Umatilla, Harney, Klamath, Lane and Wallawa Counties. CD 10/27—ENR 10/29.

Pennsylvania—Dpt. Hys., Harrisburg, Oct. 30, imprv. 5.668 ft. Lackawanna and Luzerne Counties, from A. B. Cole, **Meshoppen. $256,-704.** Received no bids Oct. 30, imprv. 2.684 ft. Erie Co. CD 10/21.

Tennessee—State Hy. Dpt., Nashville, Oct. 30, imprv. 2.049 mi. Shelby Co., from Ziegler Constr. Co., American Natl. Bank Bldg., Nashville. **$170,406.** CD 10/15—ENR 10/22.

Wash., Seattle—City, Bd. P. Wks., Oct. 29, concrete walks 28 Ave. N.W., from M. Moschetto, 5318 12 Ave. S, **$36,367.** Est. $34,895. CD 10/14—ENR 10/22.

CONTRACTS AWARDED

†**Alabama**—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, paving, grassing, Inv. 564-43-248, Dale Co., to J. T. Williams Co., Ozark.

†**Florida**—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, paving, draining roads, Duval Co., to James Craggs Constr. Co., Ocala, under **$50,000.**

†**Florida**—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, clearing, grubbing, grading, draining, paving roads, Inv. Neg-Jax-43-328, Charlotte Co., to John H. Craggs Constr. Co., Ocala, under **$50,000.** Awarded 10/25.

†**Georgia**—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., paving sight-seeing road exten., Chattahoochee Co., to W. L. Cobb Constr. Co., Bell Bldg., Montgomery, Ala., **$50,000-$100,000.**

†**Georgia**—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., imprv. miscellaneous roads, Chattahoochee Co., to W. L. Cobb Constr. Co., Bell Bldg., Montgomery, Ala., **$100,000-$500,000.**

†**Georgia**—U. S. Eng., Marietta, approach roads, Cobb Co., to McDougald Constr. Co., Hemphill Ave., N.W. Atlanta, Ga.

Idaho—A. C. Merritt, comr. P. Wks., Boise, imprv. roads, Kootenai Co., to Max J. Kuney Co., N. 120 Ralph St., Spokane, Wash., **$180,-707.** Bids 10/30. CD 10/21.

†**Kansas**—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., roads and streets, Barton Co., to H. Thompson & Co., Ellinwood, Est. under **$50,000.** CD 10/22—ENR 10/29 under Public Bldgs.

†**Massachusetts**—U. S. Eng., Park Sq. Bldg., Boston, constructing roads, No. 175-43-NEG 131, Middlesex Co., to Dingley Contg. Co., Sudbury. Est. over **$25,000.** CD 10/30—ENR 11/5.

†**Mississippi**—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, roadway extens., Hinds Co., to J. W. Jarratt & Son, Kosciusko, **$50,000-$100,000.** BA 10/20. CD 10/16.

Missouri—State Hy. Comn., Jefferson City, imprv. 3.124 mi. Jackson Co., own forces. **$189,582.** C. W. Brown, Jefferson City, engr. CD 10/16—ENR 10/22, under LB.

Missouri—State Hy. Comn., Jefferson City, imprv. 1.088 mi. Pulaski Co., own forces. **$113,288.** C. W. Brown, Jefferson City, engr. CD 8/18—ENR 8/20.

†**New Jersey**—U. S. Eng., 6 and Walnut Sts., Phila., Pa., concrete pavement surfacing, road shoulders, concrete sidewalks, drainage, Morris Co., to Eugene F. Verga, Inc., Bway. and Cooper St., Camden, under **$50,000.**

O., Cleveland—Cuyahoga Co., hot mix paving Berea Rd., to Monarch Paving Co., Western Reserve Bldg., **$28,600.** Bids 10/20. CD 10/12—ENR 10/15.

★**Oklahoma**—State Hy. Dpt., Oklahoma City, to Richards & Mullinix, 1401 W. 5 St., Oklahoma City, imprv. 4.7 mi. Muskogee Co., **$35,226,** est. $47,230, 5.4 mi. Muskogee Co., **$97,664,** est. $80,000; 4.017 mi. Tulsa Co., **$41,908,** est. $88,000***to Smith Bros., Noble, 4.02 mi. Pittsburg Co., **$222,659,** est. $207,436; 6.3 mi. Carter Co., **$237,707,** est. $244,967*** to G. E. Keck, Fairview, 7.9 mi. Dewey Co., **$139,097,** est. $157,885***to R. R. Tway, 710 E. 13 St., Oklahoma City, 5.9 mi. Harmon Co., **$91,024,** est. $81,208****to J. W. Moorman & Son, Muskogee, 4.8 mi. Mayes Co., **$73,841,** est. $104,463. Grand total $939,126. Received no bids imprv. roads, Tillman and Atoka Counties. CD 10/20.

Pa., New Castle—C. Ed. Brown, city clk., concrete paving, curbing, sidewalks, widening Sherman and S. Jefferson Sts., to New Castle Duntile Co., 1409 Moravia St., **$25,798.** J. Z. Street, City Bldg., engr.

Pa., Pittsburgh—Dpt. P. Wks., grading, concrete paving, curbing Zarbua St., Bengler to Syrian Sts., to Pavia Co., Verona Rd. Penn Twp., Pittsburgh, **$25,000.**

†**Tennessee**—U. S. Eng., 306 U. S. Courthouse, Nashville, rock surfacing, Coffee Co., to Gardner Constr. Co., McGavock Lane, Nashville, under **$50,000.**

†**Texas**—U. S. Eng., Fort Sam Houston, clearing, grubbing, etc., Bexar Co., to Collglazier & Hoff, 326 Seguin Rd., San Antonio, under **$50,000.** Awarded 10/30.

†**Texas**—U. S. Eng., 25 St. and Avenue P Galveston, paving, drainage roads and streets Harris Co., to Brown & Root, Inc., 4306 Calhoun Rd., Houston, under **$50,000.**

†**Washington**—U. S. Eng., 800 3 Ave., Seattle, paving, Spokane Co., to J. H. Collins, Box 56, Spokane, **$100,000-$500,000;** paving, Spokane Co., to Northwest Pavers, P. O. Box 135, Seattle, **$100,000-$500,000.**

Washington — State Hy. Dpt., Olympia, imprv. road, Lewis Co., to C. W. Thomas & Son, Winlock, **$52,379*****road Columbia Co., to Poe Bros., Clarkston, **$280,004*****road Yakima Co., to J. W. Morrison & Co., Spokane, **$53,995.** Grand total $386,378. Bids 11/5. CD 10/19—ENR 10/22.

Que., Valcartier—Dpt. National Defense, Ottawa, Ont., roads, sewers, etv., at Dominion Arsenal, to Union Quarries & Paving, Ltd., 48 2 Ave., Quebec City, **$300,000.**

EARTHWORK, WATERWAYS

PROPOSED WORK

†**Idaho**—Bureau Reclamation, Boise, Idaho, cancelled bids to have been opened Nov. 12, constructing diversion and outlet tunnel for Cascade Dam, Payette Div., Boise Project, Spec. 1050. CD 10/20—ENR 10/22.

Ia., Council Bluffs—Rockford Twp. Drainage Dist., plans election to vote on construction ditches, laterals, near here. $15,000.

★†**Missouri**—U. S. Eng., 10 E. 17 St., Kansas City, Mo., levee, Buchanan Co. Under $100,000. Burns & McDonnell Eng. Co., 107 W. Linwood Blvd., Kansas City, Mo., consult. engrs.

†**Pacific Northwest**—U. S. Eng., 800 3 Ave., Seattle, Wash., dredging marsh, Inv. 220.

★**Ont., Atikokan**—Steep Rock Iron Mines, Ltd., Maj. Gen. D. M. Hogarth, pres., 25 King St. W., Toronto, bids soon river diversion, mining structures, de-watering Steep Rock Lake, railway siding, etc. $6,000,000. Robert & Crago, 306 Lonsdale Bldg., Duluth, Minn., and H. G. Acres & Co., Ltd., 2135 Culp St., Niagara Falls, Ont., engrs.

Ont., Toronto—East York Twp., 443 Sammon Ave., retaining walls, Don River. G. Jack, Township Hall, engr.

BIDS ASKED

Bids Asked December 1

†**California** — Bureau Reclamation, Denver, Colo., structural steel for spillway bridge, Shasta Dam, Kennett Div., Central Valley Project, Calif., Spec. 1051.

LOW BIDDERS

La., Pointe a la Hache — Plaquemines Parish, Oct. 20, dredging canal, from J. P. Davis Constr. Co., Chalmette. Est. **$22,000.** CD 10/9.

CONTRACTS AWARDED

Calif., Richmond — City, dredging Ford Channel for benefit Richmond Shipyard 2, to Permanente Metals Corp., Latham Sq. Bldg., Oakland. Est. **$28,200.**

†**Florida**—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, constructing, installing headwalls, spillways, Inv. Neg-J.M.A. 43-4, Duval Co., to J. H. Wolf, Jr., 7455 Laura St., Jacksonville, under **$50,000.** Awarded 10/24.

★**Louisiana**—Industrial Company, protection bulkhead piling, excav. and concrete work, to G. F. Favrot, Balter Bldg., under **$1,000,000,** Shrouds & Hooton, 624 Audubon St., engrs.

★†**Missouri**—U. S. Eng., P. O. Box 97, Memphis, Tenn., earthwork, Scott and Mississippi Counties, to Reginald B. Potashnick, Cape Giradeau, under **$1,000,000.**

†**Washington**—U. S. Eng., 800 3 Ave., Seattle, excavation, Jefferson Co., to Rumsey & Co., 3821 Airport Way, Seattle, under **$50,000.**

UNCLASSIFIED

PROPOSED WORK

†**Arizona**—GASOLINE FUELING SYSTEM—U. S. Eng., Albuquerque, N. M., engineer-architect services by W. C. Kruger, Santa Fe, N. M., gasoline fueling sys., Cochise Co.

Calif., San Francisco—PIER—General Eng. & Drydock Co., Filbert and Sansome Sts., soon lets contract altering Pier 25; over $50,000. H. M. Engle, 110 Sutter St., engr.

★†**Florida**—IMPROVEMENTS—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, imprvs., Orange Co. Over $2,000,000.

†**Georgia**—IMPROVEMENTS—U. S. Eng., Post Office Bldg., Savannah, engineer-architect services by Burge & Stevens, Palmer Bldg., Atlanta, imprvs., Screven Co.

Ill., Lawrenceville — PARK — State, Springfield, 400 acre state park, Red Hills Area of western Lawrence Co. Over $25,000.

Ill., Rockford — IMPROVEMENTS — Making surveys, imprvs.

Ind., Mt. Vernon—FLOATING DOCK, etc.—Sohio Corp., Mt. Vernon, floating dry dock, 6 in. crude oil pipeline, left bank Ohio River, 5 mi. from here, also plans storage tank farm. Over $25,000.

★**Ia., Waterloo**—IMPROVEMENTS—K. Matthews, city clk., approved $450,000 bonds, imprvs. Over $500,000. CD 10/2—ENR 10/8.

†**Kansas**—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., Saline Co.

★†**Ky., Sturgis**—IMPROVEMENTS—U. S. Eng., Federal Bldg., Louisville, imprvs. Over $2,000,000.

Ky., Uniontown—FLOATING DOCK, etc.—Sohio Corp., Mt. Vernon, Ind., floating dock and 6 in. crude oil pipeline facilities on left bank of Ohio River, Wabash Island, near here. Over $25,000.

Louisiana—CASINGS—Sun Oil Co., San Jacinto Bldg., Beaumont, Tex., temporary installations 3 in. casings (pipes) stakes, detectors, etc., St. Mary and Assumption Parishes.

Louisiana—OIL WELL—Humble Oil & Refining Co., Shreveport, deep oil well test, drilling, running 5½ in. liner, developing, etc., Turtle Bayou area, Terrebonne Parish. $50,-000.

Louisiana—PIPE LINES—Shell Pipe Line Corp., Shell Bldg., Houston, Tex., two 10 in. pipelines, St. Landry and Point Coupee Parishes.

Louisiana—PIPE LINES—Shell Pipe Line Corp., Shell Bldg., Houston, Tex., 10 in. oil pipe lines, near Port Barre, St. Landry Parish, also at Livonia, Pointe Coupee Parish.

Louisiana—WHARF—U. S. Eng., foot of Prytania St., New Orleans, timber wharf, Calcasieu Parish.

La., Alexandria—GAS LINE—Southern Gas Lines, Inc., Alexandria, 42 mi. natural gas line from Ville Platte fields to Alexandria. $420,000.

†**Missouri** — IMPROVEMENTS — Civil Aeronautics Auth., 419 E. 12 St., Kansas City, Mo., rejected bids Oct. 10, imprvs. $110,000. New bids next spring. CD 10/20—ENR 10/22, under LB.

★†**Missouri**—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., bldgs., Buchanan Co. Under $1,000,000.

Neb., Alliance—IMPROVEMENTS—R. W. Laing, city clk., approved $75,000 bond issue imprvs.

Neb., York — IMPROVEMENTS — Flossie C. Hassler, city clk., defeated $40,000 bonds, imprvs. CD 9/28—ENR 10/1.

★†**N. C., Greensboro**—IMPROVEMENTS—U. S. Eng., 308 Customhouse, Wilmington, imprvs. $2,000,000.

★†**O., Vandalia** — IMPROVEMENTS — U. S. Eng., Wright Field, imprvs. $3,000,000.

†**Oklahoma**—IMPROVEMENTS—U. S. Eng., 231 W. Main St., Denison, Tex., imprvs. Plans deposit $50.

★†**Okla., Great Salt Plains** — IMPROVEMENTS—U. S. Eng., 416 Wright Bldg., Tulsa, imprvs. $3,000,000.

Tennessee — RURAL ELECTRIC LINES — Caney Fork Electric Cooperative, c/o W. W. Fraley, supt., McMinnville, rural electric distr. lines, Warren Co. $40,000.

†**Texas** and **Louisiana**—REMOVING PIPE-LINE CARRIER—Defense Plant Corp., 811 Vermont Ave., N.W., Wash., D. C., removing 154 mi. 8 in. steel pipeline carrier between Iraan, Crockett Co. and vic. Del Rio, Tex. and relaying in certain sectors eastern Texas and Louisiana. $200,000.

UNCLASSIFIED (Proposed Work, Cont'd.)

†**Texas** and **Louisiana**—PIPELINE REMOVAL—Texas Co., Houston, removing 123 mi. 10 in. steel pipeline between Del Rio and Lytle and relaying at certain points in eastern Texas and Louisiana. **$150,000.**

†**Texas** — ELECTRICAL DISTRIBUTION SYSTEM — U. S. Eng., 25 St. and Avenue F, Galveston, postponed bids to have been opened Nov. 3, outside electrical distr. sys., Spec. 42-452. Over $25,000. CD 10/30.

†**Texas**—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, imprvs., Midland, Co.

Tex., Big Lake—OIL WELL—Humble Oil & Refining Co., 1918 Wall St., Dallas, drilling, casing, developing deep test oil well, 30 mi. northwest of here. $60,000.

Tex., Grapeland—SEPARATOR—R. Grimes, Taylor, and H. Grimes, Grapeland, separator and storage facilities (probably steel) for new oil wells products. $75,000.

Tex., Port Neches—SANITARY FACILITIES—State Health Dpt., c/o Dr. G. W. Cox, Austin, county-wide sanitary facilities, Jefferson Co. $25,156. Applied for FWA funds.

Tex., Waskom—OIL WELL—Midstates Oil Corp., Shreveport, La., drilling, casing, developing several deep test oil wells (Smithfield Surveys).

†**Pacific Northwest**—STEAM SUPPLY SYSTEM, etc.—U. S. Eng., 800 3 Ave., Seattle, Wash., steam supply and distr. sys.

Alta., Bowden — IMPROVEMENTS — Dominion Govt., Ottawa, Ont., plans by Dpt. National Defense for Air, Ottawa, Ont., imprvs. $150,000.

N. S., Digby—IMPROVEMENTS—Dominion Govt., Ottawa, Ont., imprvs. $150,000. Dpt. Natl. Defense for Air, Lisgar Bldg., Ottawa, Ont., archts.

N. S., Halifax—WHARVES—Halifax Shipyards, Ltd., 7 Barrington St., repairing wharves. $39,000.

Ont., Malton — IMPROVEMENTS — Trans-Canada Air Lines, Ltd., 355 McGill St., Montreal, Que., plans by J. Schofield, 355 McGill St., Montreal, Que., imprvs. $50,000.

Que., St. Jerome—SWIMMING POOL, etc.—Knights of Columbus, St. Jerome, plans by L. Nicolas, 430 Blvd. Melancon, swimming pool, sports center. $30,000.

BIDS ASKED

Bids Asked November 18

†**Florida**—PLANTING—Pub. Bldgs. Admin., North Interior Bldg., Wash., D. C., planting.

Bids Asked

†**Maine** — STEEL FRAME WORK—U. S. Eng., Park Sq. Bldg., Boston, Mass., (from selected bidders), steel frame work.

N. M., Pinon—OIL WELL—Hunt Oil Co., Santa Fe Bldg., Dallas, Tex., drilling, developing, 5,000 ft. deep test oil well in Permien Basin, near here $75,000.

†**Texas** — ELECTRIC DISTRIBUTION — Pub. Housing Auth., NHA, Electric Bldg., Fort Worth, outside electric distr. sys. for housing, Tex 41-331. Over $25,000. Plans deposit $50. W. C. Townes, 1208 W. 10 St., Amarillo, engr.

†**Texas** — FUELING SYSTEM, etc. — U. S. Eng., 25 St. and Avenue F, Galveston, a.c. fueling sys. and fuel storage, steel tanks, etc., Howard Co. $75,000.

†**Texas**—IMPROVEMENTS—U. S. Eng., 231 W. Main St., Denison, imprvs., grading, paving roads, streets and driveways, underground utilities, water sys., sanitary sewerage sys., gas distr. lines, etc. Plans deposit $50.

†**Texas**—IMPROVEMENTS—U. S. Eng., 231 W. Main St., Denison, imprvs. Over $25,000. Plans deposit $50.

Tex., Angleton—OIL WELL—J. A. Fite, et al, c/o No. 1 Prison Farms Test, Angleton, drilling, casing, developing deep test oil well. $75,000.

Tex., Avinger—OIL TEST WELL—C. M. Beckett, Marshall, drilling, casing, developing 4 or more deep test oil wells, vicinity of here. $125,000.

Tex., Beeville—OIL TEST WELL—J. W. Gorman & Scheig Bros., Beeville, drilling, casing, developing 4,500 ft. deep oil test well. $45,000.

Tex., Dundee—OIL WELL—Whitaker Oil Co., Fort Worth, drilling, casing, developing several deep test oil wells.

Tex., Hebbronville — TEST OIL WELLS — Sun Oil Co., Milam Bldg., San Antonio, drilling, casing, developing 5,500 ft. deep test oil wells. $40,000.

Tex., Jacksboro—OIL WELL—Barnsdall Oil Co., Dallas, drilling, casing, developing 6,400 ft. deep test oil well (T. Nash survey location), near here. $75,000.

Tex., Roma—TEST OIL WELL—Sun Oil Co., Milam Bldg., San Antonio, drilling, casing, developing 6,000 ft. deep test oil well, near here. $40,000.

Tex., Seabreeze—OIL WELL—Sun Oil Bldg., Mellie Esperson Bldg., Houston, drilling, casing, developing 9,000 ft. deep test oil well. $60,000.

Tex., Tilden—OIL WELL—J. W. Gorman, Tilden, drilling, developing, setting 5½ in. liner for new 7,000 ft. deep test oil well. $60,000.

Tex., Tyler — TEST OIL WELL — B. F. Philips, Gladewater, drilling, developing 6,500 ft. deep test oil well, vicinity of here. $65,000.

LOW BIDDERS

†**California** — GAS FUELING STATION — U. S. Eng., 1208 8 St., Sacramento, Oct. 30, gas fueling station, Spec. 240, Kern Co., from Markwart Co., Forum Bldg., Sacramento, under **$50,000.** CD 10/27.

†**California**—GAS FUELING SYSTEM—U. S. Eng., 1209 8 St., Sacramento, gas fueling sys., Spec. 241, Tulare Co., from Central California Constr. Co., Inc., 230 California St., San Francisco, **$26,887.**

†**California**—IMPROVEMENTS—U. S. Eng., 74 New Montgomery St., San Francisco, imprvs., Inv. 868-43-1, Siskyou Co., from Jones & King, Jackson St., Hayward, under **$500,000.**

†**California**—IMPROVEMENTS—U. S. Eng., 1209 8 St., Sacramento, Nov. 2, imprvs., utilities, Spec. 265, San Joaquin Co., from M. J. B. Constr. Co., 444 E. Market St., Stockton. Under **$50,000.** CD 10/30.

†**Georgia** — IMPROVEMENTS — U. S. Eng., Post Office Bldg., Savannah, Oct. 27, imprvs., Laurens Co., from E. Jack Smith, Hurt Bldg., Atlanta, Ga., and C. M. Lyle Constr. Co., Gainesville, Ga.

†**Oklahoma**—IMPROVEMENTS—U. S. Eng., 416 Wright Bldg., Tulsa, imprvs., grading, clearing, drainage, concrete paving, Ellis Co., from Standard Paving Co., 2119 E. 11 St., Tulsa. **$100,000-$500,000.**

†**Texas**—CONSTRUCTION, etc.—U. S. Eng., 25 St. and Avenue F, Galveston, construction, exten. electrical distr. sys., water lines, sanitary sewer lines, gas line, bldg., from Crawford Constr. Co., McAllen, **$50,000-$100,000.** CD 11/2—ENR 11/5.

★ †**Texas** — SITE IMPROVEMENTS — Pub. Housing Auth., NHA, 1309 Electric Bldg., Fort Worth, site imprvs. for housing, Project Tex. 41142, from Vandever & Christian, P. O. Box 252, Tyler, **$570,000.** CD 10/29—ENR 11/5.

†**Texas**—IMPROVEMENTS—U. S. Eng., Fort Sam Houston, imprvs., bldg., facilities, Bastrop Co., from R. D. Jones Constr. Co., 514 Thomas Blvd., Dallas. Under **$50,000.**

†**Texas**—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, imprvs., Maverick Co., from J. L. Selber, 5502 Chaucer Dr., Houston. **$50,000-$100,000.** CD 10/30—ENR 11/5.

†**Tex., Dryden** — IMPROVEMENTS — Civil Aeronautics Admin., Box 1689, Fort Worth, Oct. 26, imprvs. (443-892), Schedules Nos. 1, 2 and 3, grading, drainage, paving, fencing, conditioning, seeding, from C. Hunter Strain, San Angelo***Schedule 4, lighting, from J. Conner, Roanoke, Va.***Schedule 5, drilling water well, etc., from Cage Bros., Bishop. CD 10/16—ENR 12/18.

Tex., Houston—IMPROVEMENTS—City, A. C. Pickett, mayor, imprvs., hard paving roads, from Atlas Constr. Co., 803 Byrne St. **$27,490.** M. McGinty, 2017 W. Gray St., engr.

Tex., Houston—IMPROVEMENTS—City, A. C. Pickett, mayor, imprvs., from Linbeck & Dederick Const. Co., 3908 Main St. **$99,971.** Est. $100,000. CD 10/28—ENR 11/5.

CONTRACTS AWARDED

†**Alabama** — ELECTRIC DISTRIBUTION SYSTEM—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, overhead electric distr. sys., Pickens Co., to Stuart C. Irby Co., 815 S. State St., Jackson, Miss. Est. **$40,000.**

†**Alabama** — ELECTRIC DISTRIBUTION SYSTEM—U. S. Eng., Court House, Mobile, overhead electric distr. sys., Inv. 569-43-277, Lee Co., to Putzel Electric Co., 420 2 St., Macon, Ga. Est. **$40,000.**

†**Alabama** — GASOLINE FUELING — U. S. Eng., U. S. Courthouse & Customhouse, Mobile, gasoline fueling sys., Dade Co., to K. Fulgnum, Thiesen Bldg., Pensacola, under **$50,000.**

†**Alabama**—GASOLINE FUELING SYSTEM, etc.—U. S. Eng., Eastaboga, a.c. gasoline fueling sys., fence, gates, Talladega Co., to Plowden & Roberts, 1420½ Taylor St., Columbia, S. C. Est. **$75,000.**

†**Alabama**—IMPROVEMENTS—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, imprvs., Mobile Co., to Leff Eng. Co., 18 S. Water St., Mobile, under **$50,000.**

†**Alabama** — LIGHTING SYSTEM — U. S. Eng., 306 U. S. Courthouse, Nashville, lighting sys., Colbert Co., to King Electric Co., Florence, under **$50,000.**

†**Arizona**—ELECTRICAL DISTRIBUTION—U. S. Eng., Albuquerque, N. M., electrical distr. sys., Coconino Co., to Dowzer Constr. Co., Hutchinson, Kan., under **$50,000.**

†**Arkansas** — AIR CONDITIONING — U. S. Eng., P. O. Box 97, Memphis, Tenn., air conditioning bldgs., contro[illegible] Co., to Shelby-Skipwith, [illegible] Memphis, Tenn., under $5[illegible]

†**Arkansas**—FENCING—[illegible] Box 97, Memphis, Tenn. [illegible] Mississippi Co., to Chas[illegible] 1629 W. 31 St., Chicago.

★ †**Arkansas**—IMPROVE[illegible] 300 Bway., Little Roc[illegible] and Prairie Counties, to [illegible] Co. Inc., Southern Natl. [illegible] **$500,000-$1,000,000.**

★ †**Arkansas**—IMPROVEM[illegible] 300 Bway., Little Rock[illegible] Co., to Carl H. Peterson & [illegible] Minneapolis, Minn., **$500,000**

★ †**Arkansas**—IMPROVEM[illegible] 300 Bway., Little Rock[illegible] garry Bros., St. Cloud, [illegible] **$1,000,000.**

†**California**—ELECTRICAL [illegible]TEM—U. S. Eng., 74 New [illegible] San Francisco, electrical ae[illegible] Obispo Co., to Collins Elec[illegible] Market St., Stockton.

†**California**—FACILITIES—[illegible] S. Figueroa St., Los Ange[illegible] Angeles Co., to I. M. Wells [illegible] under **$50,000.**

†**California**—GAS DISPENSING STATION—U. S. Eng., 74 New Mont[illegible] Francisco, gas dispensing sta[illegible] cisco Co., to Deluca & Son, [illegible] St., San Francisco, under $50,000.

†**California**—GAS FACILITIES, etc.—U. S. Eng., 74 New Montgomery St., San Francisco, addnl. gas facilities, shelters, Alameda Co., to Lewis Constr. Co., 354 Hobart St., Oakland, **$50,000-$150,000.**

†**California**—GASOLINE STORAGE FACILITIES—U. S. Eng., 74 New Montgomery St., San Francisco, gasoline storage facilities, Sonoma Co., to Fred J. Early, Jr., 369 Pine St.; electrical contract, to Robt. Case, Route 2, Box 2266, Napa. Awarded 10/28.

†**California**—IMPROVEMENTS—U. S. Eng., 4792 Sepulveda Blvd., San Bernardino, imprvs., San Bernardino Co., to H. O. Bauer, 5[illegible] Ellis Ave., Los Angeles, less than $100,000. Awarded 10/26.

†**California**—OUTER WHARF RAILROADS, etc.—U. S. Eng., 74 New Montgomery St., San Francisco, outer wharf railroads, to Ben C. Gerwick, Inc., 112 Market St., San Francisco; excavate and fill for Western Pacific Hold Yard, to Radich & Brown, 3000 Empire Ave., Burbank, both Alameda Co. Awarded 10/30.

†**California**—UTILITIES—U. S. Eng., 1209 8 St., Sacramento, utilities (A. C. fueling), Spec. 263, Yuba Co., to H. B. Nicholson, 572 Chamber of Commerce Bldg. and N. P. Van Valkenburgh, 1156 Victoria Ave., Los Angeles, under **$50,000.** CD 11/5 under LB.

California—UTILITIES—U. S. Eng., 1209 8 St., Sacramento, utilities, Spec. 216, Sacramento Co., to J. R. Reeves, Box 1072, Sacramento. Awarded 11/5.

†**Connecticut**—CONSTRUCTION—U. S. Eng., 819 Industrial Bldg., Providence, R. I., construction work, No. 699-43-101, Hartford Co., to D. A. Sullivan & Sons, Inc., 78 Main St., Northampton, Mass. Est. **$50,000-$100,000.** Bids 11/2. CD 10/30.

†**Connecticut** — CONSTRUCTION WORK — U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., construction work, No. 699-43-95, Hartford Co., to H. Wales Lines Co., 134 State St., Meriden. Est. under $50,000. Bids 10/28.

†**Connecticut** — IMPROVEMENTS — U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., imprvs., Hartford Co., to Wisconsin Bridge & Iron Wks., 5023 N. 35 St., Milwaukee, Wis. Est. over **$100,000.**

†**Florida**—BLACKOUT FACILITIES—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, blackout facilities, Alachua Co., Inv. Neg-C.E.-43-2, to The Maxwell Co., Inc., 271 N.W. 20 St., Miami, under **$50,000.** Awarded 10/13.

†**Florida** — CLEARING, etc. — U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, clearing, grubbing, grading, draining, paving, etc., Hillsborough Co., to Cone Bros. Contr. Co., Caesar Ave. and Cumberland St., Tampa, **$100,000-$500,000.**

†**Florida** — CLEARING, etc. — U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., clearing, grubbing, Okaloosa Co., to D. P. Douglas & Co., Anniston, Ala., under $50,000; tree planting, Okaloosa Co., to Skaggs Landscape Gardens, 1087 Wolfe St., Jacksonville, under **$50,000.**

†**Florida** — CLEARING, etc. — U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, clearing, grubbing, grading, draining, paving roads, installing underground ducts, Polk Co., to Sutton Constr. Co., Lakeland, under **$50,000.**

†**Florida**—FACILITIES—U. S. Eng., Court House and Post Office, Jacksonville, facilities, Inv-Neg-MB 43-7, Dade Co., to Lester F. Pres Corp., 1440 Alton Rd., Miami Beach. Est. under **$50,000.** Awarded 10/26.

†**Florida**—FENCE—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, fencing, Dixie Co., to Charles K. McCaskill, Jr., Gainesville, under **$50,000.**

CLASSIFIED (Contracts Awarded, Cont'd.)

†**Florida**—FUELING SYSTEM—U. S. Eng., S Courthouse & Post Office, Jacksonville, ...ng sys., Hillsborough Co., to Aqua Sys... Inc., 385 Gerard Ave., New York, N. Y., ...der $50,000.

†**Florida**—GAS MAIN—U. S. Eng., U. S. ...ourthouse & Post Office, Jacksonville, gas ...n, Hillsborough Co., to Tampa Gas Co., ...n, Tampa Ave., Tampa, under **$50,000.** ...warded 10/23.

†**Florida**—GASOLINE STORAGE, etc.—U. S. ...g. U. S. Courthouse & Post Office, Jackson... ...ille, gasoline storage and fueling sys., Marion ...g. to C. J. Keys, Federal Bldg., St. Peters... ...urg, under **$50,000.** Awarded 10/23.

†**Florida**—GASOLINE STORAGE, etc.—U. S. ...g. U. S. Courthouse & Post Office, Jack... ...ville, gasoline storage and fueling sys., ...Dixie Co., to J. Lamar Smith, 1645 Belmonte ...e, Jacksonville, under **$50,000.** Awarded ...d.

†**Florida**—GASOLINE STORAGE, etc.—U. S. ...g. U. S. Courthouse & Post Office, Jack... ...ville, gasoline storage and fueling sys., ...Neg-Jax-43-227, Hernando Co., to W. D. ...rry, Inc., Taylor Ave., St. Petersburg, un... ...$50,000. Awarded 10/24.

†**Florida**—GASOLINE STORAGE SYSTEM—... S. Eng., Court House, Jacksonville, gaso... ...ine storage sys., Monroe Co., to W. T. Price ...Dredging Corp., 3200 S.W. 27 St., Miami. Est. ...under **$50,000.** Awarded 10/29.

†**Florida**—GAS SYSTEM—U. S. Eng., U. S. ...Courthouse & Post Office, Jacksonville, tem... ...orary gas sys., Pinellas Co., to W. D. Berry, ...Inc., Taylor Arc., St. Petersburg, under ...$50,000. Awarded 10/22.

★†**Florida**—IMPROVEMENTS—U. S. Eng., ...U. S. Courthouse & Post Office, Jackson... ...ville, imprvs., Duval Co., to Ebersbach Constr. ...Co. Stovall Office Bldg., Tampa. **$1,000,000-$5,000,000.**

†**Florida**—RAILROAD SPUR TRACK—U. S. ...Eng., U. S. Courthouse & Post Office, Jack... ...sonville, railroad spur track, clearing, grub... ...bing, grading, track-laying, ballasting, plac... ...ing turnouts, constructing trestles, culverts, ...fences and cattle guards, Highlands Co., to ...R. B. McCormick & Sons, Inc., Graham Bldg., ...Jacksonville, and Okeechobee Constr. Co., ...1405 Stockton St., Jacksonville, **$100,000-$500,000.**

†**Florida**—SPRIGGING, etc.—U. S. Eng., U. ...S. Courthouse & Post Office, Jacksonville, ...sprigging and seeding, Clay Co., to Florida ...Nursery & Landscape Co., Leesburg, under ...$50,000.

†**Florida** — SPRINKLER SYSTEM — U. S. ...Eng. Court House, Jacksonville, sprinkler ...sys. Inv.-Neg. Jax 43-324, Dade Co., to Moore ...Pipe & Sprinkler Co., 1130 State St., Jackson... ...ville, under **$50,000.** Awarded 10/27.

†**Georgia**—AIR CONDITIONING—U. S. Eng., ...U. S. Courthouse & Customhouse, Mobile, Ala., ...summer air-conditioning sys. and ceiling in... ...stallation, Decatur Co., to Engineering Contrac... ...tors, Inc., Bona Allen Bldg., Atlanta, under ...$50,000.

†**Georgia** — CLEARING, etc. — U. S. Eng., ...U. S. Courthouse & Post Office, Jacksonville, ...Fla., clearing, grubbing, grading, paving, etc., ...Thomas Co., to Scott Constr. Co., Thomas... ...ville, Ga., **$100,000-$500,000.**

†**Georgia**—CLEARING, etc.—U. S. Eng., ...Post Office Bldg., Savannah, clearing, grubbing, ...Toombs Co., to J. L. Tollison, Vidalia, **$50,000-$100,000.**

†**Georgia** — ELECTRICAL DISTRIBUTION ...SYSTEM—U. S. Eng., Post Office Bldg., Savan... ...nah, electrical distr. sys., Liberty Co., to Broad... ...way Maintenance Corp., Atlanta, under **$50,000.**

†**Georgia**—FENCES—U. S. Eng., Courthouse, ...Jacksonville, Fla., fences, Inv. Neg. T.H. 43-4, ...Thomas Co., to Plowden & Roberts, 1420½ ...Taylor St., Columbia, S. C., under **$50,000.** ...Awarded 10/26.

†**Georgia** — FIRE ALARM SYSTEM — U. S. ...Eng., U. S. Courthouse & Customhouse, Mo... ...bile, Ala., installing fire alarm sys., Chatta... ...hoochee Co., to American District Telegraph ...Co., 155 6 Ave., New York, N. Y., under ...$50,000.

†**Georgia**—FIRE ALARM SYSTEM—U. S. ...Eng., U. S. Courthouse & Customhouse, Mo... ...bile, Ala., fire alarm sys., Chattahoochee Co., ...to American District Telegraph Co., 155 6 ...Ave., New York, N. Y., under **$50,000.**

†**Georgia**—GRADING, etc.—U. S. Eng., U. S. ...Courthouse & Customhouse, Mobile, Ala., ...imprvs., grading, etc., Crisp Co., to W. M. ...Ford Constr. Co., La Fayette, Ala., **$100,000-$500,000.**

★†**Georgia**—IMPROVEMENTS—U. S. Eng., ...Post Office Bldg., Savannah, imprvs., con... ...crete paving, Toombs Co., to Wm. F. Bowe, ...Jr., Augusta, **$500,000-$1,000,000.**

†**Georgia** — PAINTING — U. S. Eng., U. S. ...Courthouse & Post Office, Jacksonville, Fla., ...painting existing bldgs., Lowndes Co., to ...Modern Painting Co., Jacksonville, Fla., un... ...der $50,000.

†**Georgia** — SPRINKLER SYSTEM — U. S. ...Eng., Post Office Bldg., Savannah, automatic ...sprinkler sys., Ware Co., to Jones Auto... ...matic Sprinkler Co., Plains, under **$50,000.**

†**Idaho**—U. S. Eng., Pittock Blk., Portland, Ore., leveling course and paving, Ada Co., to Hoops Constr. Co., Twin Falls. **$125,000-$150,000.**

★†**Illinois, Indiana, Ohio** and **Pennsylvania**—PIPELINE—War Emergencies Pipeline, Inc., B. E. Hull, vice pres., Little Rock, Ark. (Cities Service Oil Co., Atlantic Refining Co., Consolidated Oil Corp., Sun Oil Co., Socony-Vacuum Inc., Tidewater Associated Oil Co., Texas Co., Gulf Refining Co., Shell Oil Co., Pan American Petroleum & Transport Co. and Standard Oil Co. of N. J.), 857 mi. 24 in. pipeline from Norris City, Ill. to Phoenixville, Pa., to Williams Bros. Corp., Natl. Bank of Tulsa Bldg., O. E. Dempsey Const. Co., Kennedy Bldg., Anderson Brothers, Tulsa, Okla., Sheehan Pipe Line Constr. Co., Natl. Bank of Tulsa Bldg., all foregoing in Tulsa, Okla., Oklahoma Contracting Co., Magnolia Bldg., Dallas, Tex., C. S. Foreman Co., N. Y. Life Bldg., Kansas City, Mo., and Ray E. Smith Constr. Co., Eldorado, Kan. Est. **$60,000,000.** Defense Plant Corp. will finance. CD 10/30—ENR 11/5.

★†**Indiana**—GASOLINE FUELING SYSTEM —U. S. Eng., 700 Union Guardian Bldg., Detroit, Mich., a.c. gasoline fueling sys., Allen Co., to H. B. Culbertson Co., 2842 W. Grand Blvd., Detroit, Mich., less than **$1,000,000.**

†**Indiana**—RELOCATING LINES, etc.—U. S. Eng., Federal Bldg., Louisville, Ky., relocating temporary lines and wiring temporary water pumps and bldgs., Bartholomew Co., to Olive-Markel Electric Co., Inc., 400 E. Market St., Louisville, Ky., under **$50,000.**

†**Iowa**—LIGHTING SYSTEM—U. S. Eng., Clock Tower Bldg., Rock Island, Ill., protective lighting sys., Scott Co., to Robbins Electrical Co., Service, 1512 6 Ave., Moline. Est. under **$50,000.**

†**Iowa**—OIL LINE—U. S. Eng., Clock Tower Bldg., Rock Island, Ill., oil line, Scott Co., to Melvin McKay, Inc., 517 17 St., Rock Island. Est. under **$50,000.**

★†**Ia., Ottumwa**—IMPROVEMENTS—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Supplementary Agreement 1, imprvs., facilities, NOY 5710, to George Sollitt Constr. Co., Lancaster Corp. and White Consolidated, Inc., 109 N. Dearborn St., Chicago, Ill., **$5,413,000.** Awarded 10/13. Additional to CD 8/6—ENR 8/13 under CA.

†**Kansas**—CLEARING, etc.—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., clearing, grading, Barton Co., to A. T. Nolan Const. Co., 20 N. 20 St., Minneapolis, Minn. Est. under **$50,000.** CD 10/22—ENR 10/29.

†**Kansas**—IMPROVEMENTS—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., imprvs., bldgs., Barton Co., to Northwestern Eng. Co., Rapid City, S. D. Est. **$450,000.** CD 10/22—ENR 10/29.

★†**Kansas**—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., bldgs., Shawnee Co., to M. W. Watson, Topeka Bldg., Topeka, less than **$3,000,000.**

†**Kansas**—IMPROVEMENTS—U. S. Eng., Albuquerque, N. M., imprvs., Finney Co., to H. D. Gossard Constr. Co., Shirkmere Bldg., Wichita, less than **$500,000.**

†**Kansas**—IMPROVEMENTS—U. S. Eng., Salina, imprvs., Saline Co., to Townsco Contg. Co., 1704 NW., 6 St., Oklahoma City, Okla., under **$50,000.**

★†**Kansas** — SITE IMPROVEMENTS — Pub. Housing Auth., NHA, Dierks Bldg., Kansas City, Mo., site imprvs., sewer, water gas, overhead electrical distr. sys., sewage plant, lawns, planting, to W. R. Grimshaw Co., Philtower Bldg., Tulsa, Okla. Est. **$500,000.**

★†**Kentucky**—IMPROVEMENTS—U. S. Eng., Federal Bldg., Louisville, imprvs., Union Co., to L. G. Arnold, Inc., Burch Const. Co., J. R. Griffith Co., and McCarthy Improvement Co., P. O. Box 192, Eau Claire, Wis., under **$1,000,000.**

†**Louisiana**—IMPROVEMENTS—U. S. Eng., foot of Prytania St., New Orleans, imprvs. Beauregard Parish, to T. W. Kleinpeter, 4047 Hatcher Dr., Baton Rouge, **$100,000-$500,000.**

†**Louisiana**—IMPROVEMENTS—U. S. Eng., foot of Prytania St., New Orleans, imprvs., Inv. 43-112, to J. A. Harper, Crowville. Awarded 10/28.

†**Louisiana**—FUELING SYSTEM—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, Miss., fueling sys., Grant Parish., to J. A. Harper, Crowville, under **$50,000.** Bids 10/28. CD 10/23—ENR 10/29.

★†**Louisiana**—GASOLINE FUELING SYSTEM—U. S. Eng., foot Prytania St., New Orleans, gasoline fueling sys. addn. and lubricating oil storage sys., Orleans Parish, to S. S. Richard, 1003 Pinehurst St., Jackson, Miss., under **$1,000,000.** Bids 11/2. CD 10/26.

†**Louisiana**—OIL PIPE LINES—U. S. Eng., foot of Prytania St., New Orleans, relocating six 8 in. oil pipe lines, to Standard Oil Co. of Louisiana, 2134 St. Charles Ave., New Orleans. Awarded 10/29. Bids 10/24.

★†**La., Houma**—IMPROVEMENTS—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave., N.W., Wash., D. C., imprvs., NOY 5745, New Orleans Area, to Horace Williams Co., 833 Howard Ave., New Orleans, **$6,876,334.** Awarded 10/27. CD 8/20, under CA.

†**Maine** — IMPROVEMENTS — U. S. Eng., Eng., Park Sq. Bldg., Boston, Mass., imprvs., No. 175-43-NEG 136, Aroostook Co., to Bridge Constr. Corp., 335 Water St., Augusta. Est. **$100,000.**

†**Maine** — IMPROVEMENTS — U. S. Eng., Park Sq. Bldg., Boston, Mass., imprvs., No. 175-43-NEG 130, Aroostook Co., to Bridge Constr. Corp., 335 Water St., Augusta. Est. **$50,000-$100,000.** CD 10/30—ENR 11/5.

†**Maryland**—CONSTRUCTION—U. S. Eng., Standard Oil Bldg., Baltimore, construction, Harford Co., to Chas. R. Scrivener Co., Inc., Old Frederick Rd. and Charing Cross, Baltimore, **$50,000-$100,000.**

†**Massachusetts**—CONTROL TOWER—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., control tower, Hampden Co., Inv. 698-43-99 to E. F. Carlson, Inc., 1694 Main St., Springfield. Est. under **$50,000.**

†**Massachusetts** — FREIGHT YARD — U. S. Eng., Park Square Bldg., Boston, freight yard, to Berke Moore Co., 11 Boylston St., Brookline. Est. **$50,000-$100,000.**

★†**Massachusetts** — IMPROVEMENTS—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., imprvs., grading, drainage, etc., Hampden Co., to David Nassif Co., 20 Providence St., Boston, **$500,000-$1,000,000.**

†**Massachusetts**—SPUR TRACK—U. S. Eng., Park Square Bldg., Boston, spur track, Middlesex Co., to Boston & Maine Railroad Co., 150 Causeway St., Boston. Est. under **$50,000.**

★†**Michigan**—WIRE FENCING, etc.—U. S. Eng., 700 Union Guardian Bldg., Detroit, wire fencing and gates, Macomb Co., to American Steel & Wire Co., New Jersey Div., 9-236 General Motors Bldg., Detroit, less than **$1,000,000.**

†**Mississippi**—FIRE ALARM SYSTEM—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., automatic fire alarm sys., Forrest Co., to American District Telegraph Co., 155 6 Ave., New York, N. Y., under **$50,000.**

†**Mississippi**—FUELING SYSTEM—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, fueling sys. addn., Hinds Co., to Campbell & Johnson, 777 Commerce St., Jackson, under **$50,000.** Bids 10/27. CD 10/21.

†**Mississippi** — FUELING SYSTEM — U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, fueling sys., Washington Co., to L. O. Brayton Co., Dyersburg, Tenn., under **$50,000.**

★†**Mississippi**—IMPROVEMENTS—Industrial Company, under auspices Government Agency, imprvs., bldg., to Brice Bldg. Co., 215 S. 18 St., Birmingham, Ala., under **$1,000,000.** J. B. Smith, Martin Bldg., Birmingham, Ala., archt.

†**Mississippi**—IMPROVEMENTS—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., imprvs., Forrest Co., to Lumnie Constr. Co., Montgomery, Ala., under **$50,000.** Awarded 10/30.

†**Mississippi**—IMPROVEMENTS—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, imprvs., Smith Co., to Boyd Constr. Co., Columbia, under **$50,000.**

†**Mississippi** — LIGHTING SYSTEM — U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., night light sys., Jackson Co., to L. R. Hime Electric Co., 376 S. County Rd., Palm Beach, Fla., under **$50,000.**

†**Mississippi**—SPRINKLER SYSTEM—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, Ala., automatic sprinkler sys., Forrest Co., to Texas Automatic Sprinkler Co., 2339 Summer St., Dallas, Tex., under **$50,000.**

†**Mississippi**—STEAM GENERATION SYSTEM, etc.—U. S. Eng., U. S. Post Office & Courthouse, Vicksburg, steam generation and steam distr. sys., Leflore Co., to S. S. Richard, Jackson, **$50,000-$100,000.**

†**Montana**—IMPROVEMENTS—U. S. Eng., Administration Bldg., Fort Peck, imprvs., grading, seeding, Valley Co., to Inland Constr. Co., 3867 Leavenworth St., Omaha, Neb. Est. under **$50,000.**

†**Nebraska** — HEATING — U. S. Eng., 1709 Jackson St., Omaha, warm air heating, Lancaster Co., to C. C. Larsen & Sons, Council Bluffs, Ia., **$50,000-$100,000.**

†**Nebraska**—IMPROVEMENTS—U. S. Eng., 10 E. 17 St., Kansas City, Mo., imprvs., concrete paving, Redwillow Co., to McCree & Co., New York Bldg., St. Paul, Minn. and Northwestern Eng. Co., Rapid City, S. D. Est. under **$100,000.**

†**Nebraska**—SEEDING, etc.—U. S. Eng., 1709 Jackson St., Omaha, seeding, mulching, Box Butte Co., to Owen Mann Constr. Co., Bellefourche, S. D., under **$50,000.**

†**Nevada**—STOCKADE FACILITIES—U. S. Eng., 4792 Sepulveda Blvd., San Bernardino, Calif., stockade facilities, Clark Co., to L. O. Waddell, Box 1048 Las Vegas, N. M. Est. less than **$50,000.**

†**New Jersey**—FIRE PROTECTION—U. S. Eng., 120 Wall St., New York, N. Y., fire protection equipment, Hudson Co., to F. and W. V. Engelberger Co., 159 Jelif Ave., Newark, under **$50,000.**

†**New Jersey**—SEEDING—U. S. Eng., 6 and Walnut Sts., Phila., Pa., seeding, Cape May Co., to Henkel & McCoy, 5900 Greene St., Germantown, Pa. **$50,000-$100,000.** Bids 10/17. CD 10/12.

UNCLASSIFIED (Contracts Awarded, Cont'd.)

†**New Mexico**—UTILITIES—U. S. Eng., Albuquerque, utilities sys., Otero Co., to R. H. Fulton, Lubbock, Tex., under **$50,000.**

N. M., Hobbs—OIL WELLS—South Basin Oil Co., Hobbs, drilling, developing, 5½ in. lining, 6,000 ft. deep test oil well, to J. T. O'Neal, Lubbock, **$68,000.** CD 10/27—ENR 10/29.

†**N. Y., Iona Island**—DOCK—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., dock, NOY 5809, to William Parrott's Son, and Hudson River Steamboat Building Co., foot Carpenter St., Newburgh. **$80,000.** Awarded 10/16.

†**North Carolina**—AIR CONDITIONING—U. S. Eng., 33 Customhouse, Charleston, S. C., air conditioning sys., Mecklenburg Co., to Page & Co., 219 S. Mint St., Charlotte, N. C.

†**North Carolina**—GASOLINE STORAGE—U. S. Eng., 33 Customhouse, Charleston, gasoline storage sys., Mecklenburg Co., to A. Z. Price Co., Inc., Piedmont Bldg., Charlotte, under **$50,000.**

†**North Carolina**—GASOLINE DISTRIBUTION—U. S. Eng., 308 Customhouse, Wilmington, construction, completion gasoline distr. sys., New Hanover Co., to W. H. Sullivan Co., Inc., Greensboro, under **$50,000.**

†**North Carolina**—MOTOR FUEL FACILITIES—U. S. Eng., 308 Custom House, Wilmington, bldgs., Onslow Co., to P. S. West, Statesville. Bids 10/30.

†**North Carolina** — SPUR TRACK — U. S. Eng., 308 Customhouse, Wilmington, construction and completion spur track, Richmond Co., to Grannis, Higgins, Thompson & Street Co., Builders Bldg., Charlotte, **$50,000-$100,000.**

†**N. C., Wilmington**—LANDSCAPING—Housing Auth., Wilmington, landscaping, New Hanover Co., for NHA, to Howard-Hickory Co., Hickory, **$49,948.** Bids 10/28.

†**Ohio** — ELECTRIC WIRING, etc. — U. S. Eng., 925 New Federal Bldg., Pittsburgh, Pa., electric wiring and distr. sys., Trumbull Co., to Lancaster Electric Supply Co., Lancaster, Pa., **$100,000-$500,000.**

★†**Ohio**—RAILROAD TRACK—U. S. Eng., 709 Union Guardian Bldg., Detroit, Mich., railroad track work, Lorain Co., to Stevens Constr. Co., Marion Bldg. Cleveland, less than **$1,000,000.**

†**Oklahoma**—ELECTRICAL DISTRIBUTION—U. S. Eng., 231 W. Main St., Denison, Tex., electrical distr. facilities, incl. fire alarm sys. and sprinkler sys., Solic. 257-43-82, Carter Co., to American District Telegraph Co. of Oklahoma, 400 N. Bway., Oklahoma City, **$50,000-$100,000.**

†**Oklahoma**—FIRE ALARM SYSTEM, etc.—U. S. Eng., 231 W. Main St., Denison, Tex., automatic fire alarm sys. and addnl. electric facilities, Atoka Co., to American District Telegraph Co., 155 6 Ave., New York, N. Y., under **$50,000.**

★†**Oklahoma**—GRADING, etc.—U. S. Eng., 231 W. Main St., Denison, Tex., grading, drainage, Bryan Co., to Gilloz Co. Inc., Monett, Mo., to exceed **$500,000.** Awarded 11/2.

★†**Oklahoma** — IMPROVEMENTS — U. S. Eng., 231 W. Main St., Denison, Tex., imprvs., grading, drainage, concrete and asphalt paving, outside lighting, Inv. 257-43-101, Bryan Co., to Concrete Materials Const. Co. and A. J. Spicer, 4520 Dodge St., Omaha, Neb., **$500,000-$1,000,000.** CD 10/19—ENR 10/22.

★†**Oregon**—IMPROVEMENTS—U. S. Eng., Pittock Blk., Portland, Sect. B, imprvs., Jefferson Co., to Ford J. Twaits, 816 W. 5 St., Los Angeles, Calif., and Morrison-Knudsen Co., Inc., 319 Bway., Boise, Idaho, **$1,000,000-$5,000,000.**

†**Oregon**—LIGHTING SYSTEM—U. S. Eng., Pittock Blk., Portland, lighting sys., Harney Co., to City Electric Co., Burns, under **$50,000.**

†**South Carolina**—AIR CONDITIONING SYSTEM, etc.—U. S. Eng., 33 Customhouse, Charleston, installing air conditioning and heating sys., Greenville Co., to Reamer Industries, Inc., Seaboard Pk., Columbia, under **$50,000.**

†**South Carolina**—ELECTRICAL DISTRIBUTION—U. S. Eng., 33 Customhouse, Charleston, electrical distr. sys., Union Co., to Little Electric Co., Union, under **$50,000.**

†**South Carolina**—FENCING—U. S. Eng., 33 Customhouse, Charleston, fencing, Richland Co., to E. T. Gulledge, Wedgefield, under **$50,000.**

†**South Carolina** — GASOLINE SYSTEM — U. S. Eng., Aiken, S. C., A.C. gasoline sys., Aiken Co., to Aqua Systems, Inc., 385 Gerard Ave., New York, N. Y.

†**South Carolina** — GASOLINE SYSTEM — U. S. Eng., Congaree, A.C. gasoline sys., Sumter Co., to E. C. Bridges, Heath Springs. Bids 10/16.

†**South Carolina** — IMPROVEMENTS — U. S. Eng., Greenville, imprvs., Greenville Co., to B. H. Martin, Easley.

★†**South Carolina**—IMPROVEMENTS—U. S. Eng., Fort Jackson, imprvs., Orangeburg Co., to H. E. Wolfe, St. Augustine, Fla., **$500,000-$1,000,000.** CD 10/20—ENR 10/22.

★†**South Carolina**—IMPROVEMENTS—U. S. Eng., 33 Customhouse, Charleston, imprvs., clearing, grading, surfacing, Florence Co., to W. C. Shepherd & Co., 2450 Briarcliff Rd. N.E., Atlanta, Ga. Est. **$500,000-$1,000,000.**

†**South Carolina**—IMPROVEMENTS — U. S. Eng., 33 Customhouse, Charleston, imprvs., Richland Co., to Warren Bros. Roads Co., Memorial Dr., Cambridge, Mass., **$100,000-$500,000.**

†**South Carolina**—IMPROVEMENTS — U. S. Eng., Congaree, imprvs., to Warren Bros. Road Co., 30 Memorial Dr., Cambridge, Mass., Bids 10/23; roads and streets, to Boyle Constr. Co. and Davis Moragne Constr. Co., 301 Gadsden St., Columbia, Bids 10/28, both Richland Co.

†**South Carolina**—TOWERS, etc.—U. S. Eng., 33 Customhouse, Charleston, erecting towers and electric lighting range, Richland Co., to Plowden & Roberts, 1420½ Taylor St., Columbia, under **$50,000.**

†**South Dakota**—MARKING—U. S. Eng., 1709 Jackson St., Omaha, marking, Davison Co., to Townsco Contg. Co., Oklahoma City, Okla., under **$50,000.**

†**Tennessee** — FUELING SYSTEM — U. S. Eng., P. O. Box 97, Memphis, a.c. fueling sys., Shelby Co., to Robert M. Lee (Lee Constr. Co.), 1467 Lamar Ave., Memphis, **$50,000-$100,000.** Bids 10/19. CD 10/15.

★†**Texas** and **Oklahoma**—RAILROAD RELOCATION—U. S. Eng., 231 W. Main St., Denison, Tex., relocating 3.1 mi. railway (Frisco Ry. Co.), between Randolph, Tex., and Ravia, Okla., etc., for Denison Dam and Reservoir, near Madill, Okla., to Austin Bridge Co., 1813 Clarence St., Dallas, Tex., and Austin Contg. Co., Denison, Tex., **$550,818.** CD 9/9—ENR 9/17 under LB, Texas.

†**Texas**—CONSTRUCTION, etc.—U. S. Eng., Fort Sam Houston, construction, utilities, fencing, etc., Brown Co., to C. H. Oehler, 5007 Bway., San Antonio, under **$50,000.** Additional to CD 10/7—ENR 10/15 under CA.

†**Texas**—GASOLINE FUELING SYSTEMS—U. S. Eng., Fort Sam Houston, a.c. gasoline fueling sys. and oil storage facilities, Presidio Co., to Wonderly Constr. Co., 2634 Lime Ave., Long Beach, Calif., **$50,000-$100,000.** Awarded 10/30. CD 9/30—ENR 10/8.

†**Texas**—GASOLINE FUELING—U. S. Eng., Albuquerque, N. M., gasoline fueling sys. addn., Lubbock Co., to Wonderly Constr. Co., Long Beach, Calif., under **$50,000.**

†**Texas**—IMPROVEMENTS—U. S. Eng., 25 St. and Avenue F, Galveston, imprvs., Maverick Co., to M. F. Head, P. O. Box 7, San Antonio. **$50,000-$100,000.** CD 10/30—ENR 11/5.

★†**Texas**—IMPROVEMENTS—U. S. Eng., Albuquerque, N. M., imprvs., Reeves Co., to E. Loyd, Fort Worth. **$500,000-$1,000,000.**

†**Texas**—PIPELINE CARRIER—Owner, c/o E. W. Staph, engr., 520 Alamo Bldg., San Antonio, 4½ mi. 8 in. steel pipeline carrier, pump, pump. sta. and tank, force account. **$54,000.**

Texas—PIPELINE CARRIER—Sinclair Refining Co., Gulf Bldg., Houston, 160 mi. 8 in. steel welded joint pipeline carrier (using about 40 mi. new pipe), between Robstown and Damon Mound, Brazoria Co., force account. **$225,000** (construction cost only). CD 10/27—ENR 10/5.

†**Texas**—PLATFORM—U. S. Eng., 231 W. Main St., Denison, platform, Grayson Co., to J. L. Foxworth, 4403 DeLoache Ave., Dallas, under **$50,000.**

†**Texas**—RELOCATING TELEPHONE LINE—U. S. Eng., 231 W. Main St., Denison, relocating telephone line, Lamar Co., to Gulf Refining Co., Gulf Bldg., Houston, under **$50,000.**

†**Texas** — TERRACING, etc. — U. S. Eng., Fort Sam Houston, terracing, sodding, etc., Bexar Co., Spec. 42-493, to D. P. and J. McNeel, 924 Austin St., San Antonio, under **$50,000.**

†**Texas**—UNDERGROUND UTILITIES, etc.—U. S. Eng., Dallas, underground utilities, bldgs., concrete fdns., paving, No. 257-43-109, Dallas Co., to Texas Bitulithic Co., 111 Commerce St., Dallas, **$100,000-$500,000.**

†**Texas**—UTILITIES—U. S. Eng., 231 W. Main St., Denison, utilities, Bowie Co., to Asplund Constr. Co., Enid, Okla. **$100,000-$500,000.**

†**Texas** — UTILITIES — U. S. Eng., 231 W. Main St., Denison, utilities, Gray Co., to Parrott-Oldt Co., 403 S. Haskell St., Dallas, **$50,000-$100,000.**

Tex., Kings Mill (near [illegible]—REMOVAL—Sinclair Refi[illegible] Fort Worth, removing 43 [illegible] line from Gray Co. Dist. [illegible] Isom Sta. Dist. to South[illegible] between Corpus Christi [illegible] force account. **$78,000.**

Tex., Muldoon—OIL T[illegible] Miller, La Grange, drillin[illegible] 5,800 ft. deep oil test we[illegible] account. **$45,000.**

Tex., Yorktown—OIL TE[illegible] Oil & Gas Co., Alamo B[illegible] drilling, casing, developing [illegible] test deep oil well. (Wood[illegible] here, force account. **$60,000.**

†**Virginia** — IMPROVEMEN[illegible] Richmond, imprvs., Henri[illegible] Perrin, Central Natl. Bank [illegible] Under **$50,000.**

†**Washington** — GASOLIN[illegible] FACILITIES—U. S. Eng., 80[illegible] addnl. gasoline dispensing f[illegible] Co., to E. L. McColl, Op[illegible] **$50,000.**

†**Washington** — IMPROVEMENTS — U. S. Eng., Pittock Blk., Portland, [illegible] Walla Walla Co., to M. J. K[illegible] anagh and F. Hoops, Walla Walla, **$100,000-$500,000.**

†**Washington** — OIL SYSTEM — U. S. Eng., 800 3 Ave., Seattle, oil sys., S[illegible] Ross Constr. Co., Seattle, under **$50,000.**

Wash., Seattle—TRANSFORMER BANKS, etc.—City, Bd. P. Wks., two [illegible] kva transformer banks also temporary feeder connections to serve Holly Park Housing [illegible] account, **$32,555.** E. R. Hoffman, City Light Bldg., city light supt.

Wisconsin — IMPROVEMENTS — Industrial Company, imprvs., bldg. addns. to Kasper Constr. Co., 1203 N. 16 St., electrical contract, to Anderson Electric Co., Manitowoc. P. Brandt, Dempsey Bldg., archt.

†**Wisconsin**—STEAM GENERATION, etc.—U. S. Eng., 408 Federal Bldg., Milwaukee, steam generation, steam distr. steam heating, steam utility, condensate return and sterilization sys., Milwaukee Co., to Downey Heating Co., 1712 W. St. Paul Ave., Milwaukee, under **$50,000.**

★†**Outside United States** — FACILITIES — Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Supplementary Agreement 2, addnl. facilities, NOY 5049, to Pacific Bridge Co., 111 Kearny St., San Francisco, Calif., **$1,500,000.** Awarded 11/2. Additional to CD 5/4—ENR 5/7, under CA.

Alta., Edmonton—IMPROVEMENTS—Dpt. Transport, Ottawa, Ont., imprvs., grading, draining, rein.-con. slab, etc., to Crook Paving & Constr. Co., Ltd., 11351 82 St., Edmonton, about **$255,000.**

Alta., Edmonton—IMPROVEMENTS—Dpt. National Defense for Air, Ottawa, Ont., imprvs., addnl. temporary accommodation, No. 3 M Depot, R.C.A.F. Station, to Foss Constr. Co., Ltd., 218 Tegler Bldg., about **$175,000-$200,000.**

Man., Gimli — RAILWAY SIDING — Dpt. Transport, Ottawa, Ont., railway siding, S.F.T. School 32, to Canadian Pacific Ry. Co., Windsor Station, Montreal, Que., **$26,000.**

Man., Valley River — IMPROVEMENTS — Dpt. Transport, Ottawa, Ont., imprvs., clearing, stumping, grading, road gravelling, etc., to A. N. Duff, Dauphin, about **$35,000.**

N. B., St. John—IMPROVEMENTS—Industrial Company, 2 story, 80x85 ft. and 2 story, 45x75x240 ft. brick bldgs., to Canadian Dredge & Dock Co., Ltd., Reeds Point Wharf, **$50,000.**

Newfoundland, Tor Bay—IMPROVEMENTS—Dpt. Transport, Ottawa, Ont., imprvs., stripping, scarifying, supplying crushed stone, etc., to McNamara Constr. Co., Ltd., Industrial St., Toronto, Ont., about **$39,000.**

N. S., Dartmouth—IMPROVEMENTS—Dpt. Transport, Ottawa, Ont., imprvs., clearing, grading, draining, etc., to Acadia Constr. Co., 101 Upper Water St., Halifax, about **$310,000.**

N. S., Dartmouth—WHARF—Dpt. Natl. Defense for Sea, Ottawa, Ont., wharf, extend, French Cable Property, Auxiliary Vessels Base, to Hall Constr. Co., Ltd., Halifax, **$50,000.** Bids 9/22. CD 9/16.

N. S., Halifax—IMPROVEMENTS—Dpt. Munitions & Supply, and Dpt. Natl. Defense for Sea, Ottawa, Ont., imprvs., H.M.C. Dockyard, to J. P. Porter & Sons, Ltd., 1010 St. Catherine St. W., Montreal, Que. **$290,000.**

Ont., Cayuga (Kohler) — IMPROVEMENTS —Dpt. Transport, Ottawa, Ont., imprvs., to Johnson Bros. Co., Ltd., 43 Market St., Brantford, about **$65,000.**

Ont., Centralia — IMPROVEMENTS — Dpt. Transport, Ottawa, imprvs., grading, strip-

UNCLASSIFIED, Contracts Awarded, Cont'd.

...ing, etc., to Warren Bituminous Paving Co. Ltd., 43 Fleet St. W., Toronto, about $32,000.

Ont., Decew Falls (Postal Dist. St. Catherines)—DECK—Hydro-Electric Power Comm. of Ontario, 620 University Ave., Toronto, removing timber superstructure, replacing timber operating deck, day labor. **$35,000.**

Ont., London — IMPROVEMENTS — Dpt. Transport, Ottawa, imprvs., clearing, stumping, draining, etc., to Towland Constr. Co., Ltd., 294 Dundas St., about **$100,000.**

Ont., Malton — IMPROVEMENTS — Dpt. Transport, Ottawa, imprvs., grading, stripping, etc., to Godson Contg. Co., Ltd., 203 Richmond St. W., Toronto. About **$115,000.**

Ont., Windsor—CINDER PIT, etc.—Michigan Central Ry., G. H. Harris, ch. engr., LaSalle St. Station, Chicago, Ill., 14x35x50 ft. cinder pit, 218 craneway, Sandwich East, to Allan Constr. Co., Ltd., 44 Wyandotte St. E., $30,000.

Sask., Ralph Station — IMPROVEMENTS — Dpt. Transport, Ottawa, Ont., imprvs., grading, smoothing, rolling, drainage, roads, etc., to Barager Bros., Elm Creek, Man., about $50,000.

LATIN AMERICA

South America, Brazil — Bids have been asked for the building in Brazil of a railway, of 44 kilometers (40 mi.) to extend from Joaquim Murtinho to paper factory, located at Alegre; continuation of connection between Palmera dos Indios and Colegio in Alagoas to form part of the Great Western of Brazil Railway sys. is provided for in current federal budget by sum of 6,000 contos (about $306,000).

PUBLIC BUILDINGS

PROPOSED WORK

★†**Alabama**—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., bids soon apartments and community bldg., Project 1106a; apartments, Project 1106s; apartments Project 1106i; dormitories and community bldg., Project 1107g; apartment Project 1106D Platt Roberts, Annex 1st Natl. Bank Bldg., Mobile, archt.

†**Ala., Tuskegee**—City, school, $65,000. **FWA.**

★†**Ala., Gadsden**—U. S. Eng., 494 Spring St. N.W., Atlanta, Ga., supply depot. Over $3,000,000.

†**California**—Bureau Reclamation, Denver, Colo., cancelled bids to have been opened Nov. 12, stop-log guides and seats, penstock intake structure at Keswick Power Plant, Kennett Div., Central Valley Project, Spec. 1053D. CD 10/27—ENR 10/29.

★†**California**—Contra Costa Housing Auth., W. Harrold, secy.-dir., 700 D St., Martinez, plans by E. Geoffrey Bangs, 605 Market St., Keith O. Narbett, 564 Market St. and E. T. Spencer, 369 Pine St., San Francisco, dormitory apartment; dwelling units, dormitory units for single persons for NHA.

†**California** — H. J. Kaiser Co., Latham Square Bldg., Oakland, bldg. Federally financed.

†**California**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, plans by Peter L. Sala, 2130 N. Commerce St., Stockton,, housing, San Joaquin Co. $400,000.

†**Calif., Barstow**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 20 unit housing, Cal-4422.

★†**Calif., Richmond**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 6,000 family unit housing, Cal-4416.

★†**Calif., San Diego**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, 600 family unit housing, Cal-4259; 400 unit dormitory apartments, Cal-4461.

†**Calif., San Diego**—San Diego Co., Court House, plans by Robt. Stanton, Del Monte Hotel, Del Monte, hospital addn. $300,000. **FWA.** CD 1/30—ENR 2/5.

★†**Calif., South San Francisco** — Housing Auth. of South San Francisco, 103 Bank Bldg., housing units, San Mateo Co., for NHA.

★†**Connecticut**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., plans by Golden Storrs & Co., 343 Fairfield Ave., Hartford, housing, Conn. 6128. CD 11/5.

★†**Connecticut**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., plans by Mylchreest & Reybolds, 238 Palm St., Hartford, and Keith Sellers, 101 Mohawk Dr., West Hartford, frame masonry units, Conn. 6129. $1,500,000. CD 11/5.

★†**Connecticut**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., dormitory apartments, CONN 6131.

★†**Connecticut**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., housing, CONN 6132. $600,000.

†**Connecticut** — Pub. Housing Auth., NHA, 24 School St., Boston, Mass., housing, CONN 6133. $400,000.

★†**Connecticut**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., plans by S. F. Jeter, Jr., 25 Lewis St., Hartford, dwelling units. CD 11/5.

★†**Connecticut**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., dwellings, CONN 6134. $1,000,000.

★†**Connecticut**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., plans by Ebbets & Frid, 15 Lewis St., Hartford, frame housing units.

†**Conn., Groton** — Federal Works Agency, 2 Lafayette St., New York, N. Y., school, $60,000 FWA allot.

†**Conn., Hartford**—City, 550 Main St., bids this month isolation hospital, Holcomb St., Conn. 6-104. $303,904. **FWA.** Ebbets & Frid, 15 Lewis St., archts.

†**Conn., Hartford**—Mt. Sinai Hospital, 119 Capitol Ave., revised plans by Ebbets & Frid, 15 Lewis St., altering 3 story structure, constructing 2 story, south wing addn., brick, limestone hospital bldgs., Conn. 6-181, Blue Hills and Towers Aves. $250,000. **FWA.** CD 4/22—ENR 4/30.

†**Conn., Hartford** — Pub. Housing Auth., NHA, 24 School St., Boston, Mass., trailer units, Conn. 6135. $150,000.

†**D. C., Wash.** — District Comrs., District Bldg., school, adjacent to Merritt School, 49 and Hays Sts. N.E., Proj. DC 49-146. $222,500. **FWA.**

†**D. C., Wash.**—Pub. Bldgs. Admin., North Interior Bldg., remodeling nurses' home, 1711 New York Ave. N.W., for Emergency Hospital, Va. 49-124. $95,000. **FWA.**

†**D. C., Wash.**—Pub. Bldgs. Admin., North Interior Bldg., nurses' home, 1711 New York Ave. N.W., for Emergency Hospital. **FWA.**

†**D. C., Wash.**—Pub. Bldgs. Admin., North Interior Bldg., remodeling hospital 1140 N. Capital St., for Sibley Memorial Hospital, Proj. 45-152. $80,000. **FWA.**

★†**D. C., Wash.**—Pub. Bldgs. Admin., North Interior Bldg., addn. Gallinger Hospital, incl. nurses and internes quarters, remodeling power plant, addn. bldg., 1 story, brick construction, 19 and C Sts. S.E. $1,000,000. **FWA.**

†**D. C., Wash.**—Pub. Bldgs. Admin., North Interior Bldg., remodeling school hospital into nurses' home, internes' quarters and basement clinic, etc., 35 and N Sts. N.W., for Georgetown Hospital, Proj. 49-151, $381,000; addn. to waiting room for out-patients, Childrens Hospital, 13 and W Sts. N.W., Proj. 49-123, $40,000; 34 bed surgery pavilion and out-patient dept., 25 and L Sts. N.W., for Columbia Hospital. **FWA.**

D. C., Wash.—District Comrs., District Bldg., 8 classroom addn. school, Naylor Rd. near Good Hope Rd. S.E., Stanton, Proj. DC-49-145. $78,000. **FWA.**

†**Florida**—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, engineer-architect services by Maurice H. Connell & Associates, Langford Bldg., Miami, construction, Hernando Co.

†**Fla., Miami Beach**—Federal Works Agency, Chrysler Bldg., Atlanta, Ga., recreation facilities. $35,000.

†**Georgia** — Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Atlanta, bids soon, housing, Project Ga. 9045, Chatham Co.

★†**Ga., Augusta**—U. S. Eng., Post Office Bldg., Savannah, converting hotel into hospital. Over $4,000,000.

Ill., East St. Louis—East Side Health Dist., 325 E. Bway., indefinitely postponed construction 2 story health center, Division Ave. between 7 and 8 Sts. $86,000 FWA allotment rejected. CD 10/6—ENR 10/8.

†**Illinois**—Caterpillar Tractor Co., East Peoria, addnl. plant facilities. Over $400,000 Defense Plant Corp. will finance.

†**Ill., Moline**—Pub. Housing Auth., NHA, 201 N. Wells St., Chicago, will not construct 74 family unit housing, Ill-11074. Project cancelled. CD 10/28—ENR 11/5.

†**Ill., Wilmington**—Federal Works Agency, 20 N. Wacker Dr., Chicago, plans by Zook & Taylor, 140 N. Dearborn St., Chicago, 2 portable school bldgs., Proj. Ill. 11-227. $60,000.

★†**Indiana**—Evansville Housing Auth., City Hall, Evansville, bids soon, dormitory type bldgs., single and double residences, row houses, for NHA. $3,000,000. Edwin C. Berendes, 121 N.W. 4 St., Evansville, A. M. Strauss, 415 Cal-Wayne Bldg., Fort Wayne, and Allied Architects & Engineers, 922 Architects & Builders Bldg., Indianapolis, assoc. archts. CD 10/22—ENR 10/30.

†**Iowa**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., plans by D. D. Morgan, 109½ Jefferson St., Burlington, community center, $40,000.

†**Iowa**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., remodeling bldgs., Polk Co. Wetherell & Harrison, 506 Shops Bldg., Des Moines, archts.

†**Kansas**—U. S. Eng., 10 E. 17 St., Kansas City, Mo., bids soon, bldg. addn. Howard-Needles-Tammen & Bergendoff, 1012 Orear Leslie Bldg., Kansas City, Mo., archts.

†**Kansas**—U. S. Eng., 10 E. 17 St., Kansas City, Mo., bids soon, bldgs., Saline Co. $300,000. Burns & McDonnell, 107 W. Linwood Blvd., Kansas City, Mo., archts.

†**Kan., Wichita**—Wesley Hospital, plans nearing completion by Lorentz Schmidt, 1832 E. 2 St., hospital addn. $275,000. **FWA.** CD 11/5.

★†**Maine**—Pub. Housing Auth., NHA, 24 School St., Boston, Mass., plans by A. J. Harriman, Masonic Bldg., Portland, demountable housing, Me. 17039. $2,000,000.

†**Maryland**—Pub. Housing Auth., NHA, Temporary Bldg., 2, 19 and D Sts. N.W., Wash., D. C., plans by E. Jacques Kahn and Robert Allan Jacobs, 2 Park Ave., New York, N. Y., community bldg., etc. Md. 18191.

†**Md., Aberdeen**—Federal Works Agency, 18 and F Sts. N.W., Wash., D. C., plans by Taylor & Fisher, 1012 N. Calvert St., Baltimore, and A. Shaw, Belair, school.

†**Md., Cheverly**—Federal Works Agency, 18 and F Sts. N.W., Wash., D. C., bids early in November, hospital. CD 10/26—ENR 10/29.

†**Md., Edgewood**—Federal Works Agency, 18 and F Sts. N.W., Wash., D. C., plans by Taylor and Fisher, 1012 N. Calvert St., Baltimore, and A. Shaw, Belair, school.

†**Md., Olney**—Federal Works Agency, 18 and F Sts. N.W., Wash., D. C., hospital for Montgomery Co. General Hospital, Md-18-160.

★†**Massachusetts** — Sprague Specialties Co., North Adams, plant facilities, $750,000. Defense Plant Corp. will finance.

†**Mass., Lynn**—Lynn Hospital, 212 Boston St., plans by Stevens, Curtin, Mason & Riley, 45 Newbury St., Boston, 4 story, brick, wood nurses' home and service unit, Lv. 5-2100. $150,000. **FWA.** CD 7/1—ENR 7/9.

†**Mass., Taunton**—Federal Works Agency, 31 St. James Ave., Boston, plans by S. W. Haynes & Associates, 336 Main St., Fitchburg, altering bldg. for recreational purposes. $85,000.

★†**Michigan**—Ford Motor Co., Dearborn, addnl. plant facilities. Over $650,000. Defense Plant Corp. will finance.

†**Mississippi**—Federal Works Agency, Chrysler Bldg., Atlanta, Ga., recreation bldg.

†**Mississippi**—Government Agency, civilian housing, Jack B. Smith, Martin Bldg., Birmingham, Ala., archt.

†**Mo., Maryland Heights**—Maryland Heights School Dist. of St. Louis Co., G. C. Goza, supt., Fee Fee Rd. near Dorsett Rd., St. Louis Co., bids November or December, school addn., Docket Mo. 23-153. $28,000. **FWA.** Bonsack & Pearce, Inc., Merchants Laclede Bldg., St. Louis, archt. CD 3/27—ENR 4/2.

★†**Nev., Las Vegas and Boulder City**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, Calif., 300 family unit housing, Nev-26025.

†**Nev., Ploche**—Pub. Housing Auth., NHA, 785 Market St., San Francisco, Calif., 40 family unit housing, Nev-26051; 70 unit temporary dormitories, Nev-26052.

N. Y., Brooklyn—Dpt. Markets, Municipal Bldg., New York, plans by A. Henry Johnson, c/o owner, 1 story bldg. for use as public market, 8719-29 Avenue D. $168,000.

†**N. Y., Poughkeepsie** — Federal Works Agency, 2 Lafayette St., New York, plans by C. C. Ade, 80 East Ave., Rochester, temporary addn. St. Francis Hospital. $100,000 gr. CD 5/6—ENR 5/14.

†**New Mexico**—U. S. Eng., Albuquerque, engineer-architect services by W. C. Kruger, Santa Fe, bldgs. and chapel, Chaves, Bernalillo and Eddy Counties.

†**New Mexico**—U. S. Eng., Albuquerque, engineer-architect services by W. C. Kruger, Santa Fe, hospital, Otero Co.

†**North Carolina**—Eastern Carolina Regional Housing Auth., Clinton, homes for civilian personnel, Onslow Co., for NHA.

†**North Carolina** — Wilmington Housing Auth., H. Emory, exec. dir., Wilmington, plans by Lynch & Foard, 202½ Princess St., Wilmington, bldgs., for NHA.

★†**North Carolina**—Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C., plant facilities. Over $500,000. Industrial Company will operate.

★†**N. C., Greensboro**—U. S. Eng., 308 Customhouse, Wilmington, hospital facilities. Over $2,000,000.

†**N. C., New Bern**—Federal Works Agency, 606 State Planters Bldg., Richmond, Va., plans by R. Fuson, New Bern, addn. Good Shepherd Hospital for Negroes. $34,300 gr. CD 10/23—ENR 10/29.

PUBLIC BLDGS. (Proposed Work, Cont'd.)

N. C., Wilmington—Federal Works Agency, 606 State Planters Bldg., Richmond, Va., bids soon, 2 story, brick health center. $37,000 gr. **FWA.** Lynch & Foard, 202½ N. Princess St., archts. CD 10/29.

★**†N. C., Wilmington**—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., 200 unit temporary dormitories. NC-31073; 440 unit dormitory apartments, NC-31074; 1,614 family unit housing, NC-31075; 1,100 family unit housing, NC-31076.

†O., Medina—Pub. Housing Auth., NHA, 9 St. and Prospect Ave., Cleveland, 80 family unit housing, Ohio-33192.

★**†Oregon**—U. S. Eng., Pittock Blk., Portland, military housing, Deschutes Co. To exceed $4,000,000.

†Ore., Portland — Portland School Bd., 5 school addns. $272,200. **FWA.**

★**†Pennsylvania** — Pub. Housing Admin., NHA, 261 County Bldg., Pittsburgh, sketches by W. M. Braziell, 310 Magee Bldg., Pittsburgh, Pa., housing, Stowe Twp. No. 2, Pa. 36-172, for Allegheny County Housing Auth. $2,000,000. J. E. Burke, 206 Magee Bldg., Pittsburgh, engr. CD 9/17—ENR 9/24.

★**†Pennsylvania**—Pub. Housing Auth. NHA, 270 Bway., New York, N. Y., plans by Silverman, Levy, Thalheimer & Weitz, Banker Bldg., Phila., houses.

★**†Pennsylvania**—Pub. Housing Auth., NHA, 270 Bway., New York, N. Y., plans by W. H. Lee, H. D. Daget, V. D. Abel, Schaff Bldg., Phila., housing; plans by E. P. Simon, Fidelity Bldg., Phila., housing; plans by G. S. Idell, I. Demchick, Howell, Lewis Shay D. Supowitz, 1512 Chestnut St., Phila., housing; plans by Louis Magaziner & Assoc., 1701 Walnut St., Phila., housing; plans by Davis & Dunlap, 1717 Sansom St., Phila., homes; plans by W. R. Morton Keast-J. R. Carroll, Jr., Commonwealth Bldg., Phila., housing.

†Pennsylvania—Pub. Housing Auth., NHA, 270 Bway., New York, N. Y., plans by Savery, Scheetz & Gilmour, Stephen Girard Bldg., Phila., housing.

†Pa., Mechanicsburg—Pub. Housing Auth., NHA, 270 Bway., New York, N. Y., 60 unit dormitories, Pa-36086 T.

†South Carolina—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., remodeling hotel into dormitory units, SC-38064.

★**†Texas**—Pub. Housing Auth., NHA, plans by H. F. Kuehen, B. F. Giesecke and R. M. Brooks, Littlefield Bldg., Austin, housing, incl. administration and schools, utilities, etc., $1,750,000; facilities for large trailer camp, $250,000.

†Texas—U. S. Eng., Fort Sam Houston, postponed bids to have been opened Nov. 3 bldgs., water distr. lines, sanitary sewer collection and natural gas distr. lines, Spec. 42-452a $150,000. CD 10/29, under BA.

★**†Texas**—Rubber Reserve Corp., 811 Vermont Ave. N.W., Wash., D. C., plant, $2,500,000 or more. Industrial Company will operate.

†Texas—U. S. Eng., Fort Sam Houston, postponed bids to have been opened Oct. 31, bldgs., underground utilities, outside electrical distr. sys., etc. $80,000. CD 10/27.

†Virginia—Pub. Housing Auth., NHA, plans by Faulkner & Kingsbury, 917 15 St. N.W., Wash., D. C., remodeling and addns. existing bldgs. to provide community facilities, Va. 44018.

†Virginia—Pub. Housing Auth., NHA Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., plans by Murphy & Locraft, 1413 H Sts. N.W., Wash., D. C., community bldg., Va. 44019.

†Virginia—Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., plans by Heaton & Chatelain, 1211 Connecticut Ave. N.W., Wash., D. C., community bldg., Va. 44231.

†Va., Arlington—Pub. Bldgs. Admin., North Interior Bldg., Wash., D. C., emergency operations unit, health center, N. 16 and Edison Sts., Va. 44-279. $168,000. **FWA.**

†Va., Hampton—Federal Works Agency, 606 State Planters Bldg., Richmond, nurses' home, for Dixie Hospital. $131,700.

†Va., Newport News—Federal Works Agency, 606 State Planters Bldg., Richmond, school. $268,300.

†Va., Norfolk—Federal Works Agency, 606 State Planters Bldg., Richmond, school, $252,470.

†Va., Portsmouth—Federal Works Agency, 606 State Planters Bldg., Richmond, school. $107,500.

★**†Va., Portsmouth** — Pub. Bldgs. Admin., North Interior Bldg., Wash., D. C., hospital and nurses quarters, Norfolk Co., near here, Va. 44-272. $891,000. **FWA.**

★**†Washington** — Port Orchard Housing Auth., Port Orchard, housing, sewer and water sys., for NHA. $8,000,000.

†Washington — Stetson-Ross Machine Co., 3204 1 St. S., Seattle, plant. $250,000. Defense Plant Corp. will finance.

†Wash., Ephrata — Pub. Housing Auth., NHA, Skinner Bldg., Seattle, demountable type housing units. $400,000.

★**†Wash., Everett**—Everett Housing Auth., Everett, permanent and temporary housing units. $1,200,000. Sievers & Duecy, 3124 Paine St., engrs. CD 11/4—ENR 11/12.

†Wash., Renton—School Bd., Renton, plans by W. Mallis, Lyon Bldg., Seattle, 1 story frame school. $148,500. **FWA.**

†Wash., Ruston (Tacoma) — Pub. Housing Auth., NHA, Skinner Bldg., 5 Ave. and Union St., Seattle, 200 unit temporary dormitories, Wash-45017.

†West Virginia—Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C., plant. $375,000. Industrial Company will operate.

†W. Va., Morgantown—Federal Works Agency, 606 State Planters Bldg., Richmond, Va., bids soon addn. Monongalia General Hospital, for Monongalia Co. $120,200. Tucker & Silling, Masonic Temple, Charleston, archts. CD 10/21—ENR 10/21.

†Pacific Northwest—U. S. Eng., 800 3 Ave., Seattle, Wash., bldg.

†Pacific Northwest—U. S. Eng., 800 3 Ave., Seattle, Wash., bldgs., Inv. 207.

†Pacific Northwest—U. S. Eng., 800 3 Ave., Seattle, Wash., bldg., Inv. 217.

†Pacific Northwest—U. S. Eng., 800 3 Ave., Seattle, Wash., bldg., etc., Inv. 218.

Que., Huntingdon—Dominion Govt., Ottawa, Ont., plans by Dpt. Natl. Defense, Ottawa, Ont., enlarging military training centre. $200,000. Dpt. Munitions & Supply, Ottawa, Ont., engrs.

BIDS ASKED

Bids Asked November 17

Alta., Calgary—Secretary Dpt. Munitions & Supply, Ottawa, Ont., drill and recreation halls, storage bldg., O. R. Quarters, N.C.O. Quarters, at No. 11 Equip. Depot, for Dpt. Natl. Defense, Ottawa, Ont.

Bids Asked November 19

†N. Y., Schenectady—Schenectady Municipal Housing Auth., 402 Millard St., housing, NYS-14; adv. ENR 11/12.

Bids Asked November 20

†N. C., New Bern—Federal Works Agency, 606 State Planters Bldg., Richmond, Va., Good Shepherd Hospital addn., Craven Co. $34,300. R. Fuson, New Bern, archt.

Bids Asked November 23

†Montana—Great Falls Housing Auth., Great Falls, housing for NHA. $300,000. A. V. McIver, Strain Bldg., Great Falls, archt.

Bids Asked November 24

†Ill., East St. Louis—Federal Works Agency, 377 U. S. Court House, Chicago, exterior and interior painting Post Office and Court House, Missouri Ave, and 8 St.

★**†Maryland** — Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., temporary housing, Proj. Md-18162.

Bids Asked December 1

†Maryland—Pub. Housing Auth. NHA., Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., temporary housing, Md-1816; dormitory apartments, Md 1814. CD 10/16—ENR 10/22.

Bids Asked January 19

†N. Y., Canandaigua—Veterans Admin., Vermont Ave., between H and I Sts. N.W., Wash., D. C., infirmary.

Bids Asked

★**†Alabama** — Mobile Housing Auth., temporary housing apartments, Ala. 1106, Mobile Co., for NHA. Platt Roberts & O. W. Long, Jr., Annex 1st National Bank Bldg., Mobile, and Harry I. Johnstone, 60 St. Francis St., Mobile, archts.

†Alabama—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, addnl. bldgs., Pickens Co. $250,000.

★**†Alabama**—Housing Auth. of Mobile, 600 N. Joachim St., housing dormitories, Ala. 1107, Mobile Co. Platt Roberts, O. W. Long, Jr., H. Q. Johnstone and W. H. March, 1st Natl. Bank Bldg., Mobile, Ala., archts. Plans deposit $50.

★**†California**—Pub. Housing Auth., NHA. 785 Market St., San Francisco, (from selected list bidders), apartments. CD 11/2.

†Florida — Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., dormitory housing, Fla 8152, and permanent housing, Fla. 8154. Yonge & Hart, 28½ S. Palafox St., Pensacola, archts. CD 10/8—ENR 10/15.

†Maryland—Alley Dwelling Auth., 1300 E. St. N.W., Wash., D. C., landscaping and plumbing, dwellings, for NHA.

†Maryland—Pub. Housing Auth., NHA, Temporary Bldg. 2, 19 and D Sts. N.W., Wash., D. C., housing, Md 18191.

†Massachusetts—U. S. Eng., Park Sq. Bldg., Boston, (from selected bidders), temporary bldgs., No. 175-43-NEG 128, Barnstable Co.

†Massachusetts—U. S. Eng., Park Square Bldg., Boston, (selected bidders) temporary bldgs., No. 175-43-Neg. 128, Middlesex Co.

†Massachusetts—U. S. Bldg., Boston, (selected bidders), No. 175-43-Neg.

†Texas—Pub. Housing Belknap St., Fort Worth, Tarrant Co. Plans de Pelich, Geren & Rady, Fort Worth, archts. CD

†Texas—U. S. Eng., Galveston, bldgs., Travis Plans deposit $50.

★**†Virginia**—Pub. Hou Temporary Bldg. 2, 1 Wash., D. C., dormitor 10/19—ENR 10/22.

LOW BIDDERS

†California—Dpt. Agric Rubber Project, 200 Platt dino, Nov. 6, Bell Ranch Whittier Ranch Camp, utility bldgs., comfort st barracks, admin. bldgs., utilities, Inv. 41, from J. 3045 Gilroy St., Los Ang 10/20. $144,961

†California—U. S. Dpt. Agency Rubber Project, 200 Bernardino, Nov. 6, Carlsbad shelters, family utility bldg tions, administration bldg. utilities, etc., Inv. 40, from Beverly Hills, **$156,367.**

†Illinois—Pub. Housing Auth. NHA, 200 Wells St., Chicago, Oct. unit housing, from Assets S. La Salle St., Chicago. $325,375, CD —ENR 10/28.

†North Carolina—Eastern Carolina Regio Housing Auth., Dunn Bldg., New Bern, O 26, community and management and ma tenance bldg., War Housing Proj. NC 31 Onslow Co., for NHA, from G. W. Ka Durham. CD 10/20.

★**†Pennsylvania**—Beaver County Housi Auth., Community Bldg., Tamaqua V lage, Mail P. O. Box 181, Beaver, housi i administration and 1 community bldg Proj. 36-301 from Henry Schaeffer Lumbe Co., N. Grant St., Kittanning. Base Bid **$1,717,000;** Bid 1-A, **$1,828,800.** CD 10/2 ENR 8/20.

★**†Pennsylvania** — Chester Housing Auth. Community Bldg., Lamokin Village Chester, Nov. 4, housing, Pa. 36265, for NHA from J. Weinstein & Co., 66 Court St., Brooklyn, N. Y., **(1) $794,456 (2) $777,450.** CD 10/2 —ENR 10/29 under BA.

†Washington — Bonneville Power Admin. L. C. Stewart, purch. officer, P. O. Box 3 Portland, Ore., Nov. 2, lightning arresters Inv. 2929, from Westinghouse Electric & Mfg Co., Porter Bldg., Portland, Ore., $27,762 CD 10/27.

†Wash., Mead—Bonneville Power Admin. L. C. Stewart, purch. officer, P. O. Box 3 Portland, Ore., Nov. 2, 15 kv oil circuit breakers, Inv. 2925, from Westinghouse Electric & Mfg. Co., Porter Bldg., Portland, Ore., $60,050 CD 10/26.

CONTRACTS AWARDED

★**†Alabama**—U. S. Eng., Gadsden, addl. housing facilities and bldgs., to Algernon Blair Co., P. O. Box 749, Montgomery, est. **$2,750,000** *** electrical contract for above bldgs., to Floyd Electric Co., Opelika, Ala., and Marshall-Stacey Co., Auburn***paving, grading, electrical work, to Ledbetter & Johnson Co., Roma, Ga., est. approx. $75,000, all in Etowah Co. CD 10/23—ENR 10/29.

†Alabama—U. S. Eng., U. S. Courthouse & Customhouse, Mobile, bldg., Mobile Co., to Foster & Creighton Co., Amer. Natl. Bank Bldg., Nashville, Tenn. Est. **$40,000.**

†Alabama—U. S. Eng., Court House, Mobile bldg., Inv. 569-43-274, Dallas Co., to H. F. Flinn, 40½ Commerce St., Montgomery. Est. **$40,000.**

★**†Ala., Childersburg**—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, Ga., 180 unit permanent housing, incl. site imprvs., plumbing, heating, electrical work, Ala. 1078, to D. T. Underwood Constr. Co., Martin Bldg., Birmingham, **$540,339.**

†Arizona—U. S. Eng., Albuquerque, N. M., temporary frame bldgs., Cochise Co., to John W. Murphey, Leo B. Keith Building Co., Tucson, $100,000-$500,000.

†California — Industrial Company hospital addn., to A. J. Hopper, 243 Langton St., San Francisco. Est. **$150,000.** Federally financed. B. M. & D. B. Clark, 310 University Ave., Palo Alto, archts. CD 10/27—ENR 10/29.

†California—Industrial Company, field hospital addn., to M. J. King, 231 Franklin St., San Francisco. Federally financed. CD 10/28—ENR 11/5.

★**†California** — Henry J. Kaiser Co., 1502 Latham Sq. Bldg., Oakland, plant bldg. expansion, San Bernardino Co., own forces. Est. **$27,000,000.** Federally financed. CD 10/26—ENR 10/29.

★**†California**—U. S. Eng., 1209 8 St. Sacramento, bldg., Contra Costa Co., to M. J.

PUBLIC BLDGS., etc. (Contracts Awarded. Cont'd.)

Kng. 231 Franklin St., San Francisco. Est. less than **$1,000,000.**

†California—U. S. Eng., 74 New Montgomery St., San Francisco, Calif., mess hall, etc. Monterey Co., to Coast Counties Constr. Co. 156 Towt St., Salinas. Awarded 10/29.

†California—U. S. Eng., 751 S. Figueroa St., Los Angeles, miscellaneous bldgs., utilities San Bernardino Co., to Calowell Constr. Co., 1335 E. Wardlow Rd., Long Beach., less than **$500,000.** Awarded 10/27.

★**†California**—U. S. Eng., 751 S. Figueroa St., Los Angeles, housing, Sol 300, San Bernardino Co., to Robt. E. McKee, 4700 San Fernando Rd. West, Los Angeles, over **$500,000.** CD 10/27—ENR 10/29, under LB.

†California—U. S. Eng., 74 New Montgomery St., San Francisco, bldg., San Francisco Co., to Biltwell Constr. Co., 4745 Geary St., San Francisco. Awarded 11/3.

†California—U. S. Eng., 74 New Montgomery St., San Francisco, bldgs., Contra Costa Co., to Whalin Bros., 2942 23 Ave., Oakland. Awarded 11/2.

†California—U. S. Eng., 74 New Montgomery St., San Francisco, bldgs., Marin Co., to Jere Strizek, 1916 Bway., Oakland. Awarded 11/2.

★**†Colorado**—U. S. Eng., Albuquerque, N. M., temporary bldg., to John W. Joynt Constr. Co., Tucson, Ariz., **$500,000-$1,000,000*****electrical distr. sys., to J. A. Callaghan, 1100 E. Missouri St., El Paso, Tex., under **$50,000***** utility sys., to P. & E. Constr. Co., 515 N. Hutcheson St., Houston, Tex., **$100,000-$500,000.** all foregoing in Las Animas Co.

†Connecticut — U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., addnl. frame housing facilities, Fairfield Co., to Coleman & Collins, 318 Turks Head Bldg., Providence, R. I. Est. **$100,000-$500,000.**

†Connecticut—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., housing, No. 693-43-102, Hartford Co., to E. Turgeon, 614 Turks Head Bldg., Providence, R. I. Est. **$100,000-$500,000.** Bids 11/4.

†Florida—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, temporary bldgs., Highland Co., to Smith-Peaker Constr. Co., Miami Beach.

†Florida—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, frame bldgs., Highlands Co., to Johnson & Mann, Walgreen Bldg., St. Petersburg.

†Florida—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, temporary frame bldgs., Hillsborough Co., to Thos. Radford Constr. Co., Live Oak, **$100,000-$500,000.**

†Florida—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, bldgs., outside utilities, Monroe Co. to Deigaard & Preston Builders, Inc., Coral Gables, **$100,000-$500,000.**

†Florida—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, bldgs., appurtenant structures, Polk Co., to J. L. Ewell, Lakeland, **$100,000-$500,000.**

†Florida—U. S. Eng., U. S. Courthouse & Post Office, Jacksonville, bldgs., Polk Co., to John Templin Lumber Co., Lakeland, **$100,000-$500,000.**

†Fla., Pensacola—Pensacola Housing Auth., Pensacola, community bldg., for NHA, to Dyston & Co., Pensacola. S. J. Welch, E. Jackson St., archt.

†Georgia—U. S. Eng., 494 Spring St. N.W., Atlanta, boiler plant piping and miscellaneous equip., Cobb Co., to Grinnell Co., Inc., 240 N. Highland Ave. N.E., Atlanta, **$100,000-$500,000.**

★**†Georgia**—U. S. Eng., Marietta, administration bldg., Cobb Co., to Hardin & Ramsey, 161 Spring St., N.W., Atlanta, **$500,000-$1,000,000.**

★**†Ga., Brunswick**—Pub. Housing Auth., NHA, Georgia Savings Bank Bldg., Peachtree and Broad Sts., Atlanta, 500 unit demountable housing, Ga-9121, incl. site imprvs., plumbing, heating, electrical work, to Mion Constr. Co., 377 Techwood Dr., N.W., Atlanta, **$1,123,558,** plus fixed fee $39,000. CD 7/30—ENR 8/6.

†Ga., Cusseta—Bd. Comrs. Chattahoochee Co., Cusseta, health center, to D. E. Newsome, Columbus. **FWA.** CD 9/16—ENR 9/24.

†Illinois—U. S. Eng., 520 Merchandise Mart, Chicago, bldgs., Lake Co., to Welso Constr. Co., 2233 W. Grand Ave., Chicago.

★**†Illinois**—War Dpt., 20 St. and Constitution Ave. N.W., construction work on military housing, Fulton Co., Units 3 and 5, to Paul Steenberg Constr. Co., 1757 First Natl. Bank Bldg., St. Paul, Minn.***Unit 2, to Schumacher Madsen Watson & Associates, 438 Baker Bldg., Minneapolis, Minn.***Unit 4, to Carl E. Erickson & Co., Inc., 2847 N. Clark St., Chicago, Total est. **$7,500,000.** CD 12/23—ENR 1/1.

†Illinois—U. S. Eng., U. S. Courthouse & Customhouse, St. Louis, Mo., temporary frame bldgs., Saint Clair Co., to J. Emil Anderson & Son, 3659 W. Belle Plain St., Chicago, **$100,000-$500,000.**

†Iowa—U. S. Eng., Clock Tower Bldg., Rock Island, Ill., post utilities shops and yards imprvs., to J. H. Hunziker, 115 W. 3 St., Davenport; prime coat of yard imprvs., to Trompeter Constr. Co., Peru, Ill., and Wier Const. Co., Clinton, all Clinton Co.

†Iowa—U. S. Eng., Clock Tower Bldg., Rock Island, water and weatherproofing bldgs., Des Moines Co., to Standard Insulation & Glass Co., Burlington. Est. under **$50,000.**

†Iowa—U. S. Eng., Clock Tower Bldg., Rock Island, Ill., boiler house, Scott Co., to J. H. Hunzinger & Co., Security Bldg., Davenport, under **$50,000.**

★**†Indiana** — Industrial Company, plant bldgs., to Jno Griffiths & Sons Constr. Co., 220 N. La Salle St., Chicago, Ill. Est. **$20,000,000.** Defense Plant Corp. will finance. Shaw, Naess & Murphy, 80 E. Jackson St., Chicago, Ill., archts.

†Indiana—Industrial Company, plant, to Wm. F. Jungclaus Co., 825 Massachusetts Ave., Indianapolis, **$80,000,** cost plus basis. Awarded 10/29. Federally financed. C. A. Tislow, 818 Architects & Builders Bldg., Indianapolis, archt. and engr.

Notice to Readers

Please do not write for additional information on individual jobs. It is not possible to answer such letters.

All the information that it is permissible to release is reported in these pages.

Business News Department

ENGINEERING NEWS-RECORD

†Ind., Gary—Bd. Directors Methodist Hospital of Gary, Inc., 6 and Grant Sts., 3 story, bsmnt., 53x185 ft., brick, glazed tile hospital addn., to Marcello Geremetta, 515 Bway. **$264,600. FWA.** CD 10/27—ENR 10/29, under LB.

†Kansas—U. S. Eng., 10 E. 17 St., Kansas City, Mo., Bldgs., Geary Co., to Green-Casson-Rinner, 1307 Tyler St., Topeka.

†Kansas—U. S. Eng., 10 E. 17 St., Kansas City, Mo., bldgs., to J. T. Constant Constr. Co., Lawrence. Howard-Needles-Tammen & Bergendoff, 1012 Orear Leslie Bldg., Kansas City, Mo., archts.

†Kansas—U. S. Eng., 10 E. 17 St., Kansas City, Mo., bldg., Leavenworth Co., to Flett Const. Co., 4505 Trost Ave., Kansas City, Mo. Est. under **$100,000.**

★**†Kansas**—U. S. Eng., 416 Wright Bldg., Tulsa, Okla., housing, barracks, sewage disposal plant, to Chas. M. Suttle, 12 N.W. 8 St., Oklahoma City; electric distr. sys., to North Texas Constr. Co., Sherman, Tex., all in Pratt Co. Total est. **$3,000,000.** CD 10/30—ENR 11/5.

★**†Kan., Hutchinson**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., addnl. facilities, NOY 5713, to Peter Kiewit Sons, Inc. and George W. Condon Co., 1924 Omaha Natl. Bank Bldg., Omaha, Neb., **$5,440,000.** Awarded 10/26. Additional to CD 8/28—ENR 9/3 under CA.

†Louisiana—U. S. Eng., foot of Prytania St., New Orleans, bldg. addn., Inv. 43-149, to J. A. Harper, Crowville. Awarded 10/28.

†Maine—U. S. Eng., Park Square Bldg., Boston, Mass., temporary bldgs., Aroostook Co., No. 175-43-NEG 123, to Davison Constr. Co., 1306 Elm St., Manchester, N. H. Est. **$50,000-$150,000.** BA 10/29. CD 10/27—ENR 10/29.

†Maine—U. S. Eng., Park Square Bldg., Boston, Mass., temporary bldgs., No. 175-43-NEG 125, Penobscot Co., to Davison Constr. Co., 1306 Elm St., Manchester. Est. **$100,000-$500,000.** Bids 10/28.

†Maine—U. S. Eng., Park Square Bldg., Boston, Mass., temporary frame bldgs., No. 175-43-NEG 126, Aroostook Co., to T. W. Cunningham, Inc., 61 State St., Bangor, **$100,000-$500,000.** Bids 10/29. CD 10/27.

†Maryland—U. S. Eng., Standard Oil Bldg., Baltimore, construction, completion temporary frame bldgs. and covered walks, Anne Arundel Co., to Charles C. Sanford Co., 530 N. Fulton Ave., Baltimore, **$100,000-$500,000.**

†Maryland—U. S. Eng., Standard Oil Bldg., Baltimore, laundry addn., Baltimore Co., to Armiger Constr. Corp., 2127 Maryland Ave., Baltimore, under **$50,000.**

†Maryland—Alley Dwelling Auth., 1300 E St. N.W., Wash., D. C., for NHA, sewerage and water systems for prefabricated houses, Prince George Co., to A. J. Ellis Co., 1178 Morse St. N.E., Wash., D. C.***painting, to D. H. Green, Chicago, Ill.***roads and walks, to Drummond & Co., Pikesville.

†Maryland—U. S. Eng., Standard Oil Bldg., Baltimore, temporary frame bldgs., Harford Co., to Albert A. Lutz Co., Inc., 500 Madison Ave., New York, N. Y., **$100,000-$500,000.** CD 10/5.

†Massachusetts—Industrial Company, plant, to Frederick-Billings Co., 10 High St., Boston, **$57,975.** Federally financed.

†Massachusetts—U. S. Eng., 31 St. James Ave., Boston, constructing mechanical equipment and changes in cold storage bldg., Barnstable Co., to York Ice Machinery Corp., 150 Causeway St., Boston, under **$50,000.**

†Massachusetts—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., bldg., Hampden Co., to M. J. Walsh & Sons Constr. Co., Shawmut Ave., Holyoke. Est. **$50,000.**

†Massachusetts—U. S. Eng., Park Sq., Boston, painting bldgs., No. 175-43-NEG 122, Middlesex Co., to C. D. Garbutt, 58 Trevalley Rd., Revere. Est. under **$50,000.** Bids 10/26.

†Massachusetts—U. S. Eng., Park Sq. Bldg., Boston, temporary bldgs., No. 175-43-Neg 129, Middlesex Co., to John Bowen Co., 129 Newbury St., Boston, Mass., **$100,000-$500,000.** Bids 11/4.

★**†Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, bldgs., Chippewa Co., to J. E. Kennedy, Sault Ste. Marie, less than **$1,000,000.**

★**†Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, bldgs., Washtenaw Co., to Wermuth Inc., 14800 Meyers Rd., Detroit, less than **$1,000,000.**

★**†Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, photographic laboratory, Macomb and Washtenaw Counties, to Campbell Constr. Co., 3255 Goldner St., Detroit, under **$1,000,000.**

★**†Michigan**—U. S. Eng., 700 Union Guardian Bldg., Detroit, guardhouse, infirmary and utility connections, Wayne Co., to Rylander-Ketzbeck Corp., 7300 Puritan Ave., Detroit, less than **$1,000,000.**

★**†Miss., Gulfport**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., Supplementary Agreement 1, advance base depot, camp for construction battalions, NOY 5528, to M. T. Reed Constr. Co., Belzoni, **$10,000,000.** Awarded 10/16.

†Missouri—U. S. Eng., 10 E. 17 St., Kansas City, Mo., temporary frame bldgs., Johnson Co., to Fogel Constr. Co., Lathrop Bldg., Kansas City, Mo. **$100,000-$500,000.**

†Missouri—U. S. Eng., 10 E. 17 St., Kansas City, Mo., bldgs., imprvs., Buchanan Co., to Sauers, Wellner & McCluskey, 1700 Snelling Ave., St. Paul, Minn. CD 10/13 and 10/20—ENR 10/15.

†Missouri—U. S. Eng., 800 U. S. Court House & Custom House, St. Louis, bldgs., facilities, railroad spur tracks, sanitary sewerage sys., etc., Neg. No. 11-3-43-82, to A. H. Haeseler Bldg. & Contg. Co., 2346 Palm St., St. Louis. Est. **$50,000-$100,000.** CD 10/31.

†Montana—U. S. Eng., Administration Bldg., Fort Peck, warehouses, Cascade Co., to Victory Constr. Co., Great Falls, under **$50,000.**

†Nebraska—U. S. Eng., 1709 Jackson St., Omaha, plumbing and heating for bldgs., Buffalo Co., to M. A. Wahn, 1423 Grand Ave., Des Moines, Ia.

†New Jersey—Industrial Company, 1 story, brick substation, to Mahony-Troast Co., 657 Main Ave., Passaic, **$45,000.**

†New Mexico—U. S. Eng., Albuquerque, bldgs., Bernalillo Co., to K. L. House Constr. Co., Albuquerque, **$100,000-$500,000.**

†New Mexico — U. S. Eng., Albuquerque, bldgs., Curry Co., to Leon Watson & Associates, 1600 West New York St., Albuquerque, **$100,000-$500,000.** Bids about 10/15.

★**†New Mexico** — U. S. Eng., Albuquerque, temporary bldgs., utilities, to Construction Co., San Francisco, Calif., **$500,000-$1,000,000;** imprvs., roads, drainage, to Allison, Armstrong & Thygeson, Roswell, **$500,000-$1,000,000,** both De Baca Co.

★**†New Mexico**—U. S. Eng., Albuquerque, completion of supplementary program, Otero Co., to L. H. Hansen & Sons, Fresno, Calif., **$500,000-$1,000,000.**

PUBLIC BLDGS. (Contracts Awarded, Cont'd.)

★**†New York**—U. S. Eng., Chimes Bldg., Syracuse, addnl. facilities, Seneca Co., to William E. Bouley & Co., 148 Genesee St., Auburn, **$500,000-$1,000,000.**

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, addnl. shop facilities, Cumberland Co., to Dixon Constr. Co., Inc., Fayetteville, under **$50,000.**

†North Carolina—U. S. Eng., 308 U. S. Customhouse, Wilmington, temporary frame bldgs., Durham Co., to P. S. West Constr. Co., Inc., Statesville, **$100,000-$500,000.**

†North Carolina—U. S. Eng., 308 Custom House, Wilmington, bldg., Guilford Co., to C. W. Angle, Inc., Greensboro.

★**†North Carolina** — U. S. Eng., Custom House, Wilmington, military housing, roads, utilities, Richmond Co., to J. A. Jones Constr. Co., 209 W. 4 St., Charlotte. Est. exceeds **$5,000,000.** J. Houston Johnson & Assoc., Atlanta, Ga., archts. Metcalf & Eddy, 1300 Statler Bldg., Boston, Mass., engrs. CD 10/6—ENR 10/8.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, bldgs., Wayne Co., to E. F. Taylor, Goldsboro.

†North Carolina—U. S. Eng., Fort Bragg, bldgs., to Whitton Bros. & Lee Constr. Co., 422 S. Church St., Charlotte; bldg., to Reinecke-Dillehay, Inc., Fayetteville, all Cumberland Co. Bids 10/28.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, bldgs., to T. A. Loving & Co., Goldsboro***bldg., Onslow Co. to R. F. Kirkpatrick, Burlington***imprvs., Onslow Co., to Grannis, Higgins, Thompson & McDevitt Co., Goldsboro, all foregoing Onslow Co.

★**†Oklahoma**—U. S. Eng., 231 W. Main St., Denison, Tex., bldgs., septic tank, access bridge, Bryan and Marshall Counties, to G. F. Lytle Co., Denison, Tex. Est. under **$3,000,000.**

†Oklahoma—U. S. Eng., 416 Wright Bldg., Tulsa, electrical work for bldgs., to Osborne Electric Co., 3219 N. Blackwelder St., Oklahoma City, **$17,600.** CD 10/20—ENR 10/22 under CA***underground utilities, sanitary sewerage sys., water distr., gas lines, etc., to Sherman Machine & Iron Works, 18 E. Main St., Oklahoma City, Okla., **$100,000-$500,000***boundary fencing, to Olson, Assenmacher & Rokahr, P. O. Box 1273, Lincoln, Neb., under **$50,000,** all foregoing in Kay Co. CD 10/7—ENR 10/15.

★**†Oklahoma**—U. S. Eng., 416 Wright Bldg., Tulsa, bldgs., utilities, roads, electrical distr. sys., streets, etc., Muscogee Co., to Ramsdell Constr. Co., Liberty Bank Bldg., Dallas, Tex., **$500,000-$1,000,000.** CD 9/23—ENR 10/1.

★**†Okla., McAlester**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., facilities, NOY 5691, to Brown & Root, Inc. and W. S. Bellows Constr. Co., P. O. Box 3, Houston, Tex., **$30,000,000.** Awarded 10/22. Additional to CD 8/4—ENR 8/6 under CA.

†Oregon—U. S. Eng., Pittock Blk., Portland, bldgs., roads, sidewalks, WW sys., Multnomah Co., to Tri-State Constr. Co., 1812 N.E. 40 St., Portland, **$150,000-$175,000.**

†Oregon—U. S. Eng., Pittock Blk., Portland, garage, Umatilla Co., to Tri-State Constr. Co., 1812 N.E. 40 St., Portland, under **$50,000.**

★**†Pennsylvania**—Pub. Housing Auth., NHA, 270 Bway., New York, N. Y., housing, Project 36295, to O. H. Martin, 513 Homewood Ave., and Hale Electric Co., 6218 Pennsylvania Ave., Pittsburgh, **$817,983.** CD 6/26—ENR 7/2 under LB.

†Pennsylvania—U. S. Eng., Standard Oil Bldg., Baltimore, Md., addnl. bldgs., Franklin Co., to Wilson Constr. Co., Johnstown, **$100,000-$500,000.**

†Rhode Island—U. S. Eng., 819 Industrial Trust Bldg., Providence, temporary frame bldgs., Kent Co., to Coleman Constr. Co., Inc., 318 Turks Head Bldg., and H. W. Collins, 7 Dyer St., Providence, **$100,000-$500,000.**

★**†South Carolina** — U. S. Eng., Florence, bldgs., miscellaneous structures, Florence Co., to B. & F. J. Constr. Co., Conover, N. C., **$500,000-$1,000,000.**

★**†Tennessee**—U. S. Eng., Tullahoma, addnl. bldgs., Coffee Co., to Foster & Creighton Co., American Natl. Bank Bldg., Nashville, under **$1,000,000.** CD 11/5 under LB.

★**†Tennessee**—U. S. Eng., P. O. Box 97, Memphis, construction and completion of bldgs. to A. Farnell Blair, Decatur, Ga., **$1,000,000-$5,000,000***railroad tracks, to Russell J. Reid, 2109 N. 14 St., Birmingham, Ala., under **$50,000***electrical distr. sys., to Electric Constr. Co., 317 Main St., Little Rock, Ark., under **$50,000,** all foregoing in Dyer Co.

★**†Tennessee**—U. S. Eng., 306 U. S. Courthouse, Nashville, bldgs., Montgomery Co., to Foster & Creighton Co., American Natl. Bank Bldg., Nashville, **$1,000,000-$5,000,000.**

★**†Tennessee**—U. S. Eng., 306 U. S. Courthouse, Nashville, bldgs., Montgomery Co., to O'Driscoll & Grove, Inc., 247 Park Ave., New York, N. Y., **$500,000-$1,000,000.**

†Texas—Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C., plant; to Rust Engineering Co., 2405 Collingsworth St., Houston, about **$300,000.** Industrial Company will operate.

†Texas—Industrial Company, 1 and 2 story, rein.-con., brick, tile bldgs., concrete fdns., Jefferson Co., to H. Weber, Perlstein Bldg., Beaumont. Federally financed. CD 10/19—ENR 10/22 under CA.

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, temporary bldgs., to A. A. Bertelsen, 2803 University Blvd., Houston, **$100,000-$500,000.** Bids about 10/26. CD 10/22.

★**†Texas**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., addnl. facilities, NOY 5739, to Norgaard & Shaw, Vilbig Bros. Inc., and Nathan Wohlfeld, Paris and Bourbon Sts., Dallas, **$6,203,000** Awarded 10/26. Additional to CD 9/10—ENR 9/17 under CA.

†Texas—U. S. Eng., Fort Sam Houston, bldgs., Spec. 42-551, Bexar Co., to Baugh & Scott, 562 Donaldson St., San Antonio, under **$50,000;** electrical work, to Martin Wright Electric Co., Auditorium Circle, San Antonio, **$2,600.** Bids about 10/17. CD 10/13.

†Texas—U. S. Eng., Fort Sam Houston, 27x248 ft. bldg., electric distr. sys., underground utilities, sewage disposal plant, concrete walks, steps, embankments, drainage, Spec. 42-558, Bexar Co., to Hawley-Riley, Inc., 3400 Fredericksburg Rd., San Antonio, **$50,000-$100,000.** CD 10/12.

†Texas—U. S. Eng., 231 W. Main St., Denison, bldgs., utilities, grounds development, etc., Dallas Co., to United Constr. Co., Austin and Young Sts., Dallas, **$100,000-$500,000.** CD 11/2—ENR 11/5.

★**†Texas**—U. S. Eng., 231 W. Main St., Denison, bldgs., Solic. 257-48-78, Collin Co., to Reid-Kane Co., 816 Amarillo Bldg., Amarillo, **$1,000,000-$5,000,000;** aerial electrical distr. sys., Solic. 257-43-49, Collin Co., to M. S. Carroll Co., De Ridder, La., under **$50,000.**

†Texas—U. S. Eng., Fort Sam Houston, bldgs., water distr. line, sewer collection line, electrical distr. sys., Kinney Co., to J. A. Walsh, 41 Country Club Pl., Corpus Christi, **$50,000-$100,000.** CD 10/13.

†Texas—U. S. Eng., Fort Sam Houston, laundry and boiler house, Spec. 42-485, Kinney Co., to Investment Service Corp., Kirby Bldg., Dallas, over **$200,000.** Bids 10/17. CD 10/13.

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, bldg., underground utilities, McClellan Co., force account. **$50,000-$100,000.** CD 10/28—EN 11/5.

★**†Utah**—U. S. Eng., 32 Exchange Pl., Salt Lake City, temporary frame bldgs., Weber Co., to Whitmeyer, Bowers, Jacobson & Olsen, Ogden, **$500,000-$1,000,000.**

†Washington—U. S. Eng., 800 3 Ave., Seattle, housing, Clallam Co., to Sullivan, Lynch & Hainsworth, 1822 McGilvra Blvd., Seattle, **$100,000-$500,000.**

†Washington—U. S. Eng., 810 3 Ave., Seattle, miscellaneous bldgs., Spokane Co., to Moore & Roberts, Box 810, Spokane, **$100,000-$500,000.**

†Wisconsin — U. S. Eng., 408 Federal Bldg., Milwaukee, remodeling bldg., own forces; electrical work, to Lord Electric Co., Sparta. Est. **$250,000.** Toltz, King & Day, Inc., 1509 Pioneer Bldg., St. Paul, Minn., archts. CD 10/27—ENR 10/29.

†Wyoming—U. S. Eng., 1709 Jackson St., Omaha, Neb., dental clinic bldgs., Laramie Co., to Cook & Weber, Cheyenne.

B. C., Hardy Bay (near Fort Rupert)—Dpt. Munitions & Supply, Ottawa, Ont., temporary bldgs., to Marwell Constr. Co., Ltd., 540 Howe St., Vancouver, **$200,000.**

★**Nova Scotia**—Dpt. Munitions & Supply, Ottawa, Ont., bldgs., wharves, etc., railway dock, East Coast, to E. G. M. Cape & Co., Ltd., 620 Cathcart St., Montreal, Que., about **$1,000,000.**

N. S., Debert (Truro)—Dpt. National Defense, Ottawa, Ont., 24 bldgs., Military Camp, to Jas. N. Kenney, 430 Roy Bldg., Halifax, **$420,000.**

N. S., Halifax—Dpt. National Defense, Ottawa, Ont., 24 bldgs. at No. 6 Dist. Depot, to Brookfield Constr. Co., Ltd., 169 Hollis St., **$400,000.**

N. S., Sydney—Dpt. Natl. Defense, Ottawa, Ont., addn. O.M.E. workshop, Victoria Park Defense Area, to R. K. MacDonald, Antigonish, **$50,000.**

Ont., Belleville—Dpt. Natl. Defense, Ottawa, twelve 21x32 ft. storage bldgs., office and search bldgs., sentry house, etc., to James W. Ross, 1010 St. Catherine St. W., Montreal, Que., about **$250,000.**

Ont., Cornwall—Wartime Housing Ltd., 55 York St., Toronto, 50 houses, to Carter-Halls-Aldinger Co., Ltd., 419 Cherry St., Toronto, about **$160,000.** CD 8/26—ENR 9/10.

Ont., Eastview — Dominion Govt., Ottawa, Ont., bldg., Montreal Rd., to Doran Constr. Co., Ltd., 78 Bank St., Ottawa. National Research Council, Sussex St., Ottawa, archts.

Ont., Picton and Mountain View—Dpt. Natl. Defense for Air, Ottawa, bldg., No. 31 Bombing & Gunnery School, Picton, also bldg. at Bombing and Gunnery S... to Fried Constr. Co., 76 ... **$300,000.** Bids 8/14. CD 8/...

Que., Montreal — Dpt. ... Ottawa, Ont., 520x630 ft., ... exten. superstructure, ... Constr. Co., Ltd., 1226 ... **$250,000.** T. Pringle & S... St., engrs.

Que., Montreal—Bids ... Bonsecours Market Bldg. ... missioners Sts. Total est... tion $50,000. Domat Bu... archt.

★**Que., St. Laurent**—War... 55 York St., Toronto, ... staff houses, dining hall, ... Ltd., 679 Bemont St., Mon... **000.** Bids 10/27. CD 10/22.

Que., St. Polycarpe — Dp... Ottawa, Ont., storage de... Constr. Co., Ltd., 407 M... **$300,000** plus.

Sask., Prince Albert—Dpt. ... Ottawa, Ont., 2 frame hospi... isolation, to W. C. Wells, Wil... CD 10/...

COMMERCIAL BUILDINGS

PROPOSED WORK

Ark., Newport—Jas. McGeh... St., Memphis, Tenn., 60 houses ...

Mass., Springfield—Wesson M... tal, Jas. M. Dunlop, supt., ... month 4 story, 45x85 ft. reinforced wing addn., $250,000. Ebbets & Frid, 15 L... archts. CD 1/16—ENR 1/22.

★**O., Worthington**—Capitol ... F. N. Hammond, pres., ... Columbus, one hundred fifty 1 story, frame dwellings, Colonial Hills Subdivision, south of here. $800,000.

Pa., Loretto—St. Francis College, Loretto, rebuilding 3 story, bsmnt., brick, steel college, $250,000.

Utah, Ogden—Dee Memorial Hospital, Ogden, soon lets contract hospital addn., $... Young & Hansen, 516 McCormick Bldg., Salt Lake City, archts. CD 4/23—ENR 4/30.

★**Va., Norfolk**—Harvard Housing Corp., Norfolk, plans by B. B. Spigel, Dickson Bldg., 33 apartment houses, Talbot Park, $625,000.

Que., Montreal—Adrien Decarie, 6257 Lajoie, Hemon St., apartment block ...

BIDS ASKED

Bids Asked About November 25

Pa., West Mayfield—Whippie Street Apartments, Inc., S. Valperga, pres., 3830 Brownsville Rd. Pittsburgh, Pa., twenty-six 2 story, bsmnt., brick veneer apartment bldgs., $... 000. W. C. Young, 524 4 Ave., Pittsburgh, archt. I. P. Lindeman, 1604 3 St., Beaver Falls, engr.

Bids Asked

Pa., Johnstown—Thos. Kinzey Lumber Co., M. R. Fetterhoff, pres., Horner and Golde St., general contract 44 (ultimate ... bsmnt., 26x28 ft. frame residences, $...

CONTRACTS AWARDED

Calif., Hayward—Le Furgey Park Building Co., c/o A. G. Le Furgey, Green Shutter Hotel, 632 Main St., sixty 1 story, residences, Upper B St., Manter Tract. Owner builds. **$240,000.**

Calif., Hayward—Zaballos Bros., 850 Silver St., 1 story frame residences. Owner builds. Over **$150,000.**

Calif., Oakland—J. W. Scammel, 424 Seneca Ave., Piedmont, residences, Rampart est. Owner builds.

Calif., Richmond—Mark A. Strang, 7849 Greenly Dr., Oakland, seventy-nine 1 story rustic residences, Key Blvd., Kern and Garwin Sts., to R. F. Johnson & Son, 2936 San Pablo Ave., El Cerrito. Est. **$237,000.**

★**Calif., San Rafael**—Jos. L. Stewart, 206 Sansome St., San Francisco, one hundred fifty 1 story, frame residences. Owner builds. **$600,000.**

Calif., Vallejo—D. L. Goforth, 1320 Tennessee St., fifty 1 story frame residences, Winslow Terrace. Owner builds. **$180,000.**

Conn., Fairfield — Waitt-Haines Building Corp., 2 W. 45 St., New York, N. Y., seventy-eight 1 story, 24x32 ft. frame houses, walks, roads, etc., to De Luca Constr. Co., 322 Main St., Stamford. Est. **$400,000.** CD 10/9—ENR 10/15.

★**Conn., Manchester**—Oak Park Corp., 36 Woodland St., one hundred sixty 1 story, frame homes, Hilliard St. Sect. Owner builds. **$600,000.**

Conn., North Branford (mail Branford)—Atwater Memorial Library, Chas. B. Atwater, donor, 44 Vernon St., Springfield, Mass., 2 story, 25x40 ft. library, to Paterson Constr. Co., Inc., 66 Anderson St., New Haven, electrical contract, to Bar-Craft Electric Co.

COMMERCIAL BLDGS. (Contracts Awarded, Cont'd.)

...t, State St., New Haven. Wm. T. Towner, ...44 Court St., Middletown, archt.

N. J., East Paterson—Macar Constr. Co., 17 Ave., thirty 1½ story, bsmnt., frame residences, separate contracts. **$150,000.**

N. J., Perth Amboy—Roosevelt Park Estates, 2 and Lafayette Aves., Raritan, ...ty-one 2 story, bsmnt., frame residences, separate contracts, **$358,250.** CD 10/1—ENR 9-24

Tex., Dallas—Delsing & Lambert, 3727 Meredith Dr., 24 one story, 39x34 frame duplexes, with twenty-four 20x20 ft. garages, ...al utilities, etc., 3600 and 3700 blocks of Mt. Pleasant Ave., force account. **$150,000.**

Wash., Seattle—Modern Home Builders, ...34 Ave. W., 24 duplex bldgs., 34 Ave. W. and W. Bertona St., day labor. **$150,000.**

Wis., Baraboo—Geo. Martiny, Baraboo, thirty 1½ story, 24x28 ft., frame houses, to Green Bay Home Building Co., 404 N. Adams St. Est. approx. **$150,000.** CD 5/19—ENR 5-28

Wis., Milwaukee — L. Markovich, 2309 W. Fond du Lac Ave., three or four 2 story, ...x43 ft., brick apartment bldgs., W. Atkinson Ave., to Pioneer Builders, Inc., 2309 W. Fond du Lac Ave.; electrical contract, to North Side Electric Co., 4053 N. 12 St.

INDUSTRIAL BUILDINGS

PROPOSED WORK

Ark., Wilson—PLANT—R.E.L. Wilson Co., Wilson, dehydrating plant. J. W. Meyer, Wilson, engr.

Calif., Orland—PLANT—Frank Agular Olive Plant, Newville Ave., rebuilding plant. $40,-000.

Calif., South San Francisco — PLANT — Western Pipe & Steel Co., South San Francisco, plant.

Conn., Milford — PLANT — Elliott Mfg. Co., 247 New Haven Ave., plans nearing completion 2 story, 60x85 ft. plant addn., 101 Gulf St. $40,000. L. F. Caproni, 1221 Chapel St., New Haven, engr. CD 8/7—ENR 8/13.

Conn., New Haven—PLANT—Bristol National Corp., Waterbury, plans by Douglas Orr, 96 Grove St., New Haven, altering 4 brick bldgs., Whalley Ave.

Conn., Waterbury—FACTORY—Owner, c/o Leo F. Caproni, engr. and archt., 1221 Chapel St., New Haven, bids soon brick factory addn. Over $40,000.

Ind., Elwood — FACTORY — Muncie Elwood Lamp Co. and Elwood Industrial Bureau, rebuilding factory. $40,000 or more incl. equip.

★**La., Eola**—PLANT—Southern Carbon Co., 605 Ouachita Bldg., Monroe, furnace-type plant. $500,000.

Massachusetts — PLANT — Bethlehem Steel Co., E. Howard St., Quincy soon lets contract 2 story plant addn., altering existing bldg.

Massachusetts — PLANT — Bethlehem Steel Co., E. Howard St., owner soon lets contract, plant and shop. Over $40,000 ea.

Minn., Brainard — PLANT — Land O'Lakes Dairy Co., 2201 Kennedy St., Minneapolis, making plants 1 and 2 story milk dehydrating plant, garage and warehouse. $60,000.

Mo., Sikeston—MILL—E. P. Coleman Co., Sikeston, rebuilding mill.

New Jersey — PLANT — Eastern Aircraft Div. General Motors, Edgar Rd., West Linden, plant. $50,000.

New Jersey—PLANT—Wm. Slack & Son, archts., 1401 W. State St., Trenton, soon let contract 1 story, 85x184 ft. concrete plant, Mercer Co., for Industrial Company. CD 11/2—ENR 11/5.

N. J., Hackettstown—PLANT—Essex Specialty Co., Stiger Ave., 1 story, bsmnt., brick, rein.-con. plant.

N. J., Phillipsburg — PLANT — Ingersoll Rand Co., Phillipsburg, altering plant, $40,000.

Tenn., McKenzie — MILL — McKenzie Milling Co., McKenzie, rebuilding mill. $100,000.

Tenn., Union City—MILL—Mengel Box Co., R. E. Gullett, Union City, rebuilding veneer mill. $100,000.

★**Alberta** — PLANT — Abasand Oils Ltd., 10019-101 A Ave., Edmonton, bids soon, developing McMurray oil sands, incl. 10,000 bbl. per day separation plant at McMurray, refinery at Edmonton, pipeline from McMurray to Waterways. $12,000,000.

Alta., Lamont—MILL—Lamont Milling Co., Ltd., Lamont, flour mill. $40,000.

Alta., White Court—MILL—Western Constr. & Lumber Co., Ltd., White Court, reconstructing, exten. mill. $40,000.

B. C., Vancouver—PLANT—V. Brick Ltd., 301 Standard Bank Bldg., plant. $40,000.

Newfoundland, St. Johns — FACTORY — Canadian Liquid Air Co., Ltd., 111 Beaver Hall Hill, Montreal, Que., factory. L. Dimitri, c/o owner, engr.

Ont., Galt—PLANT—Canadian General Rubber Co., Ltd., 52 Middleton St., bids soon, plant exten., foot of 1 Ave. $50,000 incl. equip. CD 11/2.

Ont., Hamilton—PLANT—C. D. Howe Co., Ltd., engrs., Pigott Bldg., bids soon 2 story, 60x200 ft., concrete storage shed, $60,000; 16x42 ft. and 15x32 ft. brick, concrete boiler room exten., $40,000, for Dominion Foundries & Steel, Ltd., Depew St. CD 3/11—ENR 3/26.

Ont., Levack—PLANT—International Nickel Co. of Canada, Ltd., Copper Cliff, plant addn. $75,000.

Ont., Simcoe—FACTORY—Gregory-Stuart Tobacco Co., Ltd., Simcoe, factory. $40,000.

Ont., Toronto — PLANT — General Gliders Ltd., c/o P. H. Mills, 80 W. King St., plant.

Ont., Toronto—PLANT—Kushog Lake Lumber Co., Ltd., c/o G. H. Shaver, 330 Bay St., plant. $40,000.

Ont., Waterloo—PLANT—Alex Welker Ltd., Waterloo, metal and woodworking plant.

Que., Calumet Island—MACHINE SHOP, etc.—New Calumet Mines, Ltd., Calumet Island, machine and blacksmith shops, ore bins, water tank, boiler house, etc. $75,000.

Que., Contrecoeur — SAW MILL — J. M. Jacques, Contrecoeur, saw mill. $40,000.

Que., Montreal—PLANT—Northam Warren, Ltd., 980 St. Antoine St., bids soon, plant. $50,000.

Que., Montreal — BREWERY — Montreal Products Co., Ltd., 1410 Montmorency St., brewery.

Que., Montreal—PLANT—Canadian Liquid Air Co. Ltd., 111 Beaver Hall Hill, plant addn. L. Dimitri, c/o owner, engr.

Que., Montreal — SUBSTATION — Montreal Tramway Co., 159 Craig St. W., 24x53 ft. substation, 22 ft. high. $40,000.

Que., Rouyn—MINE—Dome Mines Ltd., Excelsior Bldg., Toronto, Ont., mine bldg., ball mill. $40,000.

Que., St. Laurent (Postal Dist. Montreal)—PLANT—Temco Electric Mfg. Co., Ltd., 4800 Lagauchitiere St., Montreal, plans by L. N. Booth, 358 Caryle Ave., Mount Royal, plant addn.

Sask., Redberry—GRAIN ELEVATOR—Reliance Grain Co., Ltd., 919 Grain Exchange Bldg., Winnipeg, Man., grain elevator. $40,000.

BIDS ASKED

Bids Asked November 18

Wis., Sparta — PLANT — Sparta Co-Operative Assn., Sparta, 1 and 2 story, 88x175 ft. and 18x70 ft., brick dehydrating plant, concrete fdn. $135,000. Klinger & Hubbard, 218 S. Barstow St., Eau Claire, archts.

Bids Asked

Ark., Blytheville—PLANT—R. E. Lee Wilson Co. Estate, c/o J. H. Crain, administrator, Blytheville, vegetable dehydrating plant, Blytheville area. $250,000.

Conn., Bridgeport—FACTORY—Remington Arms Co., Inc., Barnum Ave., (selected bidders) 1 story, 110x110 ft., brick factory Bldg. 549. $45,000.

Tex., San Carlos (near Edinburg)—PLANT—Miller Bros. Food Co., San Carlos, vegetable dehydration plant and new flash-freeze plant. $60,000.

CONTRACTS AWARDED

California — PLANT — Industrial Company, plant, to Willis F. Lynn, 1037 Ashmount Ave., Oakland. CD 10/27—ENR 10/29.

Calif., Emeryville (br. Oakland)—PLANT—Judson-Pacific Iron Wks., foot of Park Ave., remodeling plant, to Louis C. Dunn, Inc., 799 Monadnock Bldg., San Francisco; electrical contract, to California Electric Co., 1125 Oak St., Oakland. Est. **$40,000.** Irving Subway Grating Co., Inc., Western Div., J. C. Lynn, genl. mgr., lessee.

Conn., Bridgeport — TURBINE — United Illuminating Co., 1115 Broad St., 1 story, 55x90 ft. rein.-con., turbine unit, to Gellatly Constr. Co., 25 Housatonic Ave., **$43,500.** Westcott & Mapes, Inc., 139 Orange St., New Haven, engrs.

Ia., Cedar Rapids—TURBINE—Iowa Electric Light & Power Co., Security Bldg., general contract turbine addn. to power plant, to Paulsen Constr. Co., 401 Iowa Theatre Bldg., **$400,000.** CD 10/28—ENR 11/5.

La., Monroe—FACTORY—S. H. Aulds, Monroe, concrete, steel factory, to John R. White, Monroe, **$50,000.** S. Smith, Monroe, archt.

Mass., Westfield—LABORATORY—Owner, c/o Malcolm B. Harding, archt., Hampden Natl. Bank Bldg., 1 story, bsmnt., 50x115 ft. brick, wood, concrete laboratory, Notre Dame St., to Ernest F. Carlson, Inc., 1694 Main St., Springfield. Est. **$40,000.**

N. Y., Dunkirk—PLANT—Alco Products, Inc., Dunkirk, 1 story, 100x200 ft., plant addn., Roberts Rd., to Walter Kidde Constructors, 140 Cedar St., New York, N. Y. **$175,000.** CD 12/18—ENR 12/25.

O., Cleveland — SUBSTATION — Cleveland Electric Illuminating Co., W. H. Hartman, purch. agt., 75 Pub. Sq., electric power substation to Hunkin-Conkey Constr. Co., 1740 E. 12 St. Est. **$195,000.** CD 10/28—ENR 11/5.

O., Cleveland—FACTORY—Vanderhorst Co., Olean, N. Y., c/o D. Murdock, 12500 Berea Rd., factory alterations, to H. F. Juergens Co., 15439 Edgewater Dr., Lakewood. Est. **$100,000.** CD 10/28—ENR 11/5.

Pa., Josephtown (mail Monaca)—STORAGE—St. Joseph Lead Co. of Pittsburgh, E. Hallbrook, purch. agt., Josephtown, 1 story, 60x240 ft., tile storage bldg. Owner builds.

R. I., Pawtucket—PLANT—Joy Chemical Co., 133 Webster St., altering 2 story, 35x35 ft. and 40x45 ft. brick addns., to Elmer Thurber, Cottage St. R. C. Niebuhr, 10 Belmont St., archt.

Tenn., Memphis—DEPOT—Illinois Central System, C. H. Mottier, ch. engr., 135 E. 11 Pl., Chicago, Ill., razing old Poplar St. Depot, constructing new bldg., to Lankey Lumber & Wrecking Co., 659 Scott St. Est. approx. **$200,000.**

Tex., Sweeney—PLANT—J. S. Abercrombie Co., Gulf Bldg., Houston, several miscellaneous types bldgs., to Benson-Marxen Co., 2006 W. Alabama Ave., Houston, **$100,000.** CD 10/19—ENR 10/22.

★**Wisconsin**—PLANT—Industrial Company, 1 story, 297x382 ft. bldg., to Hunzinger Constr. Co., Sta. K, Milwaukee. Est. **$500,000.** CD 10/28—ENR 11/5.

Wis., Kenosha — PLANT — Peacock Corp., Berryville Rd., 1 story, 70x200 ft., brick dehydrating plant, concrete fdn., to L. Klemm, 7203 22 Ave.

Wis., Racine—SHOP—Belle City Mfg. Co., 1717 Taylor Ave., 1 story, 45x100 ft., reclaimed brick blacksmith shop addn., concrete fdn., to Nelson & Co., Inc., 1550 Yont St. E. A. Klinger, 612 14 Ave., archt.

Wis., Marshfield — WAREHOUSE — Blum Bros. Box Factory, 137 W. 9 St., 2 story, 51x89 ft., brick warehouse, concrete fdn., to W. Merkel, 709 W. Dolge St. CD 10/13—ENR 10/15.

Wis., Milwaukee—MACHINE SHOP, etc.—Air Reduction Co., Inc., 3435 N. Buffum St., construction and electrical contracts 1 story, part bsmnt., 30x69 ft. machine shop-storage bldg., to F. H. McGraw & Co., 780 Windsor St., Hartford, Conn.

Wis., West Milwaukee (mail Milwaukee)—MAINTENANCE—Chain Belt Co., 1600 W. Bruce St., Milwaukee, 2 story, 61x145 ft. concrete, brick maintenance bldg., to Klug & Smith Co., 111 E. Wisconsin Ave., Milwaukee. Eschweiler & Eschweiler, 720 E. Mason St., Milwaukee, archts.

Wis., Wisconsin Rapids — WAREHOUSE — Sampson Canning Co., 1251 1 St. N., 1 story, 34x124 ft., concrete warehouse, concrete fdn., day labor. L. A. DeGuere, Mead-Witter Bldg., engr.

British Columbia—FLOTATION PLANT—Jason Mines, Ltd., 67 Yonge St., Toronto, Ont., concentration-flotation plant, Mount Sicar, Vancouver Island, day labor under supervision W. J. Asselstine, Victoria. J. H. Colville, c/o owner, engr.

Man., Winnipeg—PLANT—Burns & Co., Ltd., Logan Ave. N., 1 story, bsmnt., 23x48x 90 ft. concrete plant addn., to Beaver Constr. Co., Ltd., 1075 Arlington St., about **$16,800.** CD 11/2.

Ont., Belleville—PLANT—Allied War Supplies Corp., Ltd., 1235 McGill College Ave., Montreal, Que., plant, to J. W. Ross, 1010 Ste. Catherine St. W., Montreal, Que. Est. **$300,-000.**

Ont., Blenheim—PLANT—Warwick Seed Co., Ltd., Blenheim, corn drier and elevator, brick, concrete, to T. C. Warwick & Sons, Ltd., Chatham, **$50,000.**

Ont., Calabogie—MINE—Frobisher Exploration Co., Ltd., 25 W. King St., Toronto, mine bldgs., compressor house, hoist house, mill, etc., day labor.

Ont., Kingsville — WAREHOUSE — Likins Storage & Tobacco Co., Ltd., Kingsville, storage warehouse, to Clyde Vanzant, Erie St., over **$40,000.**

Ont., Leaside (Toronto)—PLANT—Metals & Alloys, Ltd., 1 Wiltshire Ave., plant, Wickstead Ave., to Dickie Constr. Co., Ltd., 17 Yorkville Ave., Toronto, about **$100,000.** Govan, Ferguson & Lindsay, 615 Jarvis St., Toronto, archts.

Ont., Toronto—PLANT—Canadian Industries, Ltd., Paint & Varnish Div., foot of Laughton St., altering 2 story, bsmnt., 24x82 ft. brick plant addn., to Mollenhauer Contg. Co., Ltd., 188 Perth Ave., about **$59,000.** CD 10/21—ENR 10/29.

Ont., Toronto—DEPOT—The Barrett Co., Ltd., 14 Keating St., oil storage depot, to H. A. Wickett Co., Ltd., 156 E. Front St. Est. **$40,000.**

Que., Debeaujeu—MILL—Societe Co-operative des Producteurs de Lin Vandreuil Soulauges, 2 story, 110x150 ft. flax factory, rein.-con., brick, to J. L. Guay et Freres, Ltd., 437 Guy St., Montreal, about **$50,000.** CD 11/4.

Que., Montreal—PLANT—Noorduyn Aviation Ltd., 2075 Haig St., 40x112 ft. wood storage bldg., boiler room exten., 200,000 gal. concrete water storage tank, improvs., to Richard & E. J. Ryan, Ltd., 1308 William St., approx. **$300,000.** H. R. Wiggs, 1221 Osborne St., archt. G. L. Wiggs, 660 St. Catherine Sa. W., engr.

PUBLIC BLDGS. (Contracts Awarded, Cont'd.)

★**†New York**—U. S. Eng., Chimes Bldg., Syracuse, addnl. facilities, Seneca Co., to William E. Bouley & Co., 148 Genesee St., Auburn, **$500,000-$1,000,000.**

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, addnl. shop facilities, Cumberland Co., to Dixon Constr. Co., Inc., Fayetteville, under **$50,000.**

†North Carolina—U. S. Eng., 308 U. S. Customhouse, Wilmington, temporary frame bldgs., Durham Co., to P. S. West Constr. Co., Inc., Statesville, **$100,000-$500,000.**

†North Carolina—U. S. Eng., 308 Custom House, Wilmington, bldg., Guilford Co., to C. W. Angle, Inc., Greensboro.

★**†North Carolina** — U. S. Eng., Custom House, Wilmington, military housing, roads, utilities, Richmond Co., to J. A. Jones Constr. Co., 209 W. 4 St., Charlotte. Est. exceeds **$5,000,000.** J. Houston Johnson & Assoc., Atlanta, Ga., archts. Metcalf & Eddy, 1300 Statler Bldg., Boston, Mass., engrs. CD 10/6—ENR 10/8.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, bldgs., Wayne Co., to E. F. Taylor, Goldsboro.

†North Carolina—U. S. Eng., Fort Bragg, bldgs., to Whitton Bros. & Lee Constr. Co., 422 S. Church St., Charlotte; bldg., to Reinecke-Dillehay, Inc., Fayetteville, all Cumberland Co. Bids 10/28.

†North Carolina—U. S. Eng., 308 Customhouse, Wilmington, bldgs., to T. A. Loving & Co., Goldsboro***bldg., Onslow Co. to R. F. Kirkpatrick, Burlington***imprvs., Onslow Co., to Grannis, Higgins, Thompson & McDevitt Co., Goldsboro, all foregoing Onslow Co.

★**†Oklahoma**—U. S. Eng., 231 W. Main St., Denison, Tex., bldgs., septic tank, access bridge, Bryan and Marshall Counties, to G. F. Lytle Co., Denison, Tex. Est. under **$3,000,000.**

†Oklahoma—U. S. Eng., 416 Wright Bldg., Tulsa, electrical work for bldgs., to Osborne Electric Co., 3219 N. Blackwelder St., Oklahoma City, **$17,680.** CD 10/20—ENR 10/22 under CA***underground utilities, sanitary sewerage sys., water distr., gas lines, etc., to Sherman Machine & Iron Works, 18 E. Main St., Oklahoma City, Okla., **$100,000-$500,000*****boundary fencing, to Olson, Assenmacher & Rokahr, P. O. Box 1273, Lincoln, Neb., under **$50,000,** all foregoing in Kay Co. CD 10/7—ENR 10/15.

★**†Oklahoma**—U. S. Eng., 416 Wright Bldg., Tulsa, bldgs., utilities, roads, electrical distr. sys., streets, etc., Muscogee Co., to Ramsdell Constr. Co., Liberty Bank Bldg., Dallas, Tex., **$500,000-$1,000,000.** CD 9/23—ENR 10/1.

★**†Okla., McAlester**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., facilities, NOY 5691, to Brown & Root, Inc. and W. S. Bellows Constr. Co., P. O. Box 3, Houston, Tex., **$30,000,000.** Awarded 10/22. Additional to CD 8/4—ENR 8/6 under CA.

†Oregon—U. S. Eng., Pittock Blk., Portland, bldgs., roads, sidewalks, WW sys., Multnomah Co., to Tri-State Constr. Co., 1812 N.E. 40 St., Portland, **$150,000-$175,000.**

†Oregon—U. S. Eng., Pittock Blk., Portland, garage, Umatilla Co., to Tri-State Constr. Co., 1812 N.E. 40 St., Portland, under **$50,000.**

★**†Pennsylvania**—Pub. Housing Auth., NHA, 270 Bway., New York, N. Y., housing, Project 36295, to O. H. Martin, 513 Homewood Ave., and Hale Electric Co., 6218 Pennsylvania Ave., Pittsburgh, **$817,983.** CD 6/26—ENR 7/2 under LB.

†Pennsylvania—U. S. Eng., Standard Oil Bldg., Baltimore Md., addnl. bldgs., Franklin Co., to Wilson Constr. Co., Johnstown, **$100,000-$500,000.**

†Rhode Island—U. S. Eng., 819 Industrial Trust Bldg., Providence, temporary frame bldgs., Kent Co., to Coleman Constr. Co., Inc., 318 Turks Head Bldg., and H. V. Collins, 7 Dyer St., Providence, **$100,000-$500,000.**

★**†South Carolina** — U. S. Eng., Florence, bldgs., miscellaneous structures, Florence Co., to B. & F. J. Constr. Co., Conover, N. C., **$500,000-$1,000,000.**

★**†Tennessee**—U. S. Eng., Tullahoma, addnl. bldgs., Coffee Co., to Foster & Creighton Co., American Natl. Bank Bldg., Nashville, under **$1,000,000.** CD 11/5 under LB.

★**†Tennessee**—U. S. Eng., P. O. Box 97, Memphis, construction and completion of bldgs., to A. Farnell Blair, Decatur, Ga., **$1,000,000-$5,000,000*****railroad tracks, to Russell J. Reid, 2109 N. 14 St., Birmingham, Ala., under **$50,000*****electrical distr. sys., to Electric Constr. Co., 317 Main St., Little Rock, Ark., under **$50,000,** all foregoing in Dyer Co.

★**†Tennessee**—U. S. Eng., 306 U. S. Courthouse, Nashville, bldgs., Montgomery Co., to Foster & Creighton Co., American Natl. Bank Bldg., Nashville, **$1,000,000-$5,000,000.**

★**†Tennessee**—U. S. Eng., 306 U. S. Courthouse, Nashville, bldgs., Montgomery Co., to O'Driscoll & Grove, Inc., 247 Park Ave., New York, N. Y., **$500,000-$1,000,000.**

†Texas—Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C., plant, to Rust Engineering Co., 2405 Collingsworth St., Houston, about **$300,000.** Industrial Company will operate.

†Texas—Industrial Company, 1 and 2 story, rein.-con., brick, tile bldgs., concrete fdns., Jefferson Co., to H. Weber, Perlstein Bldg., Beaumont. Federally financed. CD 10/19—ENR 10/22 under CA.

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, temporary bldgs., to A. A. Bertelsen, 2803 University Blvd., Houston, **$100,000-$500,000.** Bids about 10/26. CD 10/22.

★**†Texas**—**Yards & Docks,** Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., addnl. facilities, NOY 5739, to Norgaard & Shaw, Vilbig Bros. Inc., and Nathan Wohlfeld, Paris and Bourbon Sts., Dallas. **$6,203,000** Awarded 10/26. Additional to CD 9/10—ENR 9/17 under CA.

†Texas—U. S. Eng., Fort Sam Houston, bldgs., Spec. 42-551, Bexar Co., to Baugh & Scott, 562 Donaldson St., San Antonio, under **$50,000;** electrical work, to Martin Wright Electric Co., Auditorium Circle, San Antonio, **$2,600.** Bids about 10/17. CD 10/13.

†Texas—U. S. Eng., Fort Sam Houston, 27x248 ft. bldg., electric distr. sys., underground utilities, sewage disposal plant, concrete walks, steps, embankments, drainage, Spec. 42-558, Bexar Co., to Hawley-Riley, Inc., 3400 Fredericksburg Rd., San Antonio, **$50,000-$100,000.** CD 10/12.

†Texas—U. S. Eng., 231 W. Main St., Denison, bldgs., utilities, grounds development, etc., Dallas Co., to United Constr. Co., Austin and Young Sts., Dallas, **$100,000-$500,000.** CD 11/2—ENR 11/5.

★**†Texas**—U. S. Eng., 231 W. Main St., Denison, bldgs., Solic. 257-48-78, Collin Co., to Reid-Kane Co., 816 Amarillo Bldg., Amarillo, **$1,000,000-$5,000,000;** aerial electrical distr. sys., Solic. 257-43-79, Collin Co., to M. S. Carroll Co., De Ridder, La., under **$50,000.**

†Texas—U. S. Eng., Fort Sam Houston, bldgs., water distr. line, sewer collection line, electrical distr. sys., Kinney Co., to J. A. Walsh, 41 Country Club Pl., Corpus Christi, **$50,000-$100,000.** CD 10/13.

†Texas—U. S. Eng., Fort Sam Houston, laundry and boiler house, Spec. 42-485, Kinney Co., to Investment Service Corp., Kirby Bldg., Dallas, over **$200,000.** Bids 10/17. CD 10/13.

†Texas—U. S. Eng., 25 St. and Avenue F, Galveston, bldg., underground utilities, McClellan Co., force account. **$50,000-$100,000.** CD 10/28—EN 11/5.

★**†Utah**—U. S. Eng., 32 Exchange Pl., Salt Lake City, temporary frame bldgs., Weber Co., to Whitmeyer, Bowers, Jacobson & Olsen, Ogden, **$500,000-$1,000,000.**

†Washington—U. S. Eng., 800 3 Ave., Seattle, housing, Clallam Co., to Sullivan, Lynch & Hainsworth, 1822 McGilvra Blvd., Seattle, **$100,000-$500,000.**

†Washington—U. S. Eng., 810 3 Ave., Seattle, miscellaneous bldgs., Spokane Co., to Moore & Roberts, Box 810, Spokane, **$100,000-$500,000.**

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to Fried Constr. Co., 79
$300,000. Bids 8/14. CD 8

Que., Montreal — Dpt.
Ottawa, Ont., 520x630 ft.,
exten. superstructure,
Constr. Co., Ltd., 1226
$250,000. T. Pringle &
St., engrs.

Que., Montreal—Bids
Bonsecours Market Bldg.
missioners Sts. Total est
tion $50,000. Domat Be
archt.

★**Que., St. Laurent**—Wa
55 York St., Toronto,
staff houses, dining hall,
Ltd., 679 Belmont St., Mon
000. Bids 10/27. CD 10/

Que., St. Polycarpe — Dp
Ottawa, Ont., storage de
Constr. Co., Ltd., 407 Mc
$300,000 plus.

Sask., Prince Albert—Dpt.
Ottawa, Ont., 2 frame hospi
isolation, to W. C. Wells, Wi

COMMERCIAL BUILDINGS

PROPOSED WORK

Ark., Newport—Jas. McGehee
St., Memphis, Tenn., 60 hous

Mass., Springfield—Wesson Memorial Hospital, Jas. M. Dunlop, supt., High St., bids 1 month 4 story, 45x65 ft. technical wing addn., $250,000. Ebbets & Frid, 15 L
archts. CD 1/16—ENR 1/22.

★**O., Worthington**—Capitol
F. N. Hammond, pres.,
Columbus, one hundred fifty-story, frame dwellings, Colonial Hills Sub-Division, South of here. $800,000.

Pa., Loretto—St. Francis College, Loretto, rebuilding 3 story, bsmnt., brick, steel reinforced, $250,000.

Utah, Ogden—Dee Memorial Hospital, Ogden, soon lets contract hospital addn., $500,000. Young & Hansen, 516 McCormick Bldg., Salt Lake City, archts. CD 4/23—ENR 4/29.

★**Va., Norfolk**—Harvard Housing Corp., Norfolk, plans by B. B. Spigel, Dickson Bldg., 33 apartment houses, Talbot Park, $625,000.

Que., Montreal—Adrien Decarie, 6257 Lajoie, Hemon St., apartment block. $150,000.

BIDS ASKED

Bids Asked About November 25

Pa., West Mayfield—Whipple Street Apartments, Inc., S. Valperga, pres., 3830 Brownsville Rd. Pittsburgh, Pa., twenty-six 2 story bsmnt., brick veneer apartment bldgs., $300,000. W. C. Young, 524 4 Ave., Pittsburgh, archt. J. P. Lindeman, 1601

COMMERCIAL BLDGS. (Contracts Awarded, Cont'd.)

...21 State St., New Haven, Wm. T. Towner, ...64 Court St., Middletown, archt.

N. J., East Paterson—Macar Constr. Co., 17 Ave., thirty 1½ story, bsmnt., frame residences, separate contracts. **$150,000.**

N. J., Perth Amboy—Roosevelt Park Estates, 2 and Lafayette Aves., Raritan, thirty-one 2 story, bsmnt., frame residences, separate contracts, **$358,250.** CD 10/1—ENR 11-5

Tex., Dallas—Delsing & Lambert, 3727 Meredith Dr., 24 one story, 39x34 frame duplexes, with twenty-four 20x20 ft. garages, all utilities, etc., 3600 and 3700 blocks of Mt. Pleasant Ave., force account. **$150,000.**

Wash., Seattle—Modern Home Builders, 5142 24 Ave. W., 24 duplex bldgs., 34 Ave. W. and W. Bertona St., day labor. **$150,000.**

Wis., Baraboo—Geo. Martiny, Baraboo, thirty 1½ story, 24x28 ft., frame houses, to Green Bay Home Building Co., 404 N. Adams St. Est. approx. **$150,000.** CD 5/19—ENR 5-28

Wis., Milwaukee — L. Markovich, 2309 W. Fond du Lac Ave., three or four 2 story, 24x43 ft., brick apartment bldgs., W. Atkinson Ave., to Pioneer Builders, Inc., 2309 W. Fond du Lac Ave.; electrical contract, to North Side Electric Co., 4053 N. 12 St.

INDUSTRIAL BUILDINGS

PROPOSED WORK

Ark., Wilson—PLANT—R.E.L. Wilson Co., Wilson, dehydrating plant. J. W. Meyer, Wilson, engr.

Calif., Orland—PLANT—Frank Agular Olive Plant, Newville Ave., rebuilding plant. $40,000.

Calif., South San Francisco — PLANT — Western Pipe & Steel Co., South San Francisco, plant.

Conn., Milford — PLANT — Elliott Mfg. Co., 247 New Haven Ave., plans nearing completion 2 story, 60x85 ft. plant addn., 101 Gulf St. $40,000. L. F. Caproni, 1221 Chapel St., New Haven, engr. CD 8/7—ENR 8/13.

Conn., New Haven—PLANT—Bristol National Corp., Waterbury, plans by Douglas Orr, 96 Grove St., New Haven, altering 4 brick bldgs., Whalley Ave.

Conn., Waterbury—FACTORY—Owner, c/o Leo F. Caproni, engr. and archt., 1221 Chapel St., New Haven, bids soon brick factory addn. Over $40,000.

Ind., Elwood — FACTORY — Muncie Elwood Lamp Co. and Elwood Industrial Bureau, rebuilding factory. $40,000 or more incl. equip.

★**La., Eola**—PLANT—**Southern Carbon Co.**, 405 Ouachita Bldg., Monroe, furnace-type plant. **$500,000.**

Massachusetts — PLANT — Bethlehem Steel Co., E. Hoyard St., **Quincy** soon lets contract [illegible] bldg.

Ont., Galt—PLANT—Canadian General Rubber Co., Ltd., 52 Middleton St., bids soon, plant exten., foot of 1 Ave. $50,000 incl. equip. CD 11/2.

Ont., Hamilton—PLANT—C. D. Howe Co., Ltd., engrs., Pigott Bldg., bids soon 2 story, 60x200 ft., concrete storage shed, $60,000; 16x42 ft. and 15x32 ft. brick, concrete boiler room exten., $40,000, for Dominion Foundries & Steel, Ltd., Depew St. CD 3/11—ENR 3/26.

Ont., Levack—PLANT—International Nickel Co. of Canada, Ltd., Copper Cliff, plant addn. $75,000.

Ont., Simcoe—FACTORY—Gregory-Stuart Tobacco Co., Ltd., Simcoe, factory. $40,000.

Ont., Toronto — PLANT — General Gliders Ltd., c/o P. H. Mills, 89 W. King St., plant.

Ont., Toronto—PLANT—Kushog Lake Lumber Co., Ltd., c/o G. H. Shaver, 330 Bay St., plant. $40,000.

Ont., Waterloo—PLANT—Alex Welker Ltd., Waterloo, metal and woodworking plant.

Que., Calumet Island—MACHINE SHOP, etc.—New Calumet Mines, Ltd., Calumet Island, machine and blacksmith shops, ore bins, water tank, boiler house, etc. $75,000.

Que., Contrecoeur — SAW MILL — J. M. Jacques, Contrecoeur, saw mill. $40,000.

Que., Montreal—PLANT—Northam Warren, Ltd., 980 St. Antoine St., bids soon, plant. $50,000.

Que., Montreal — BREWERY — Montreal Products Co., Ltd., 1410 Montmorency St., brewery.

Que., Montreal—PLANT—Canadian Liquid Air Co. Ltd., 111 Beaver Hall Hill, plant addn. L. Dimitri, c/o owner, engr.

Que., Montreal — SUBSTATION — Montreal Tramway Co., 159 Craig St. W., 24x53 ft. substation, 22 ft. high. $40,000.

Que., Rouyn—MINE—Dome Mines Ltd., Excelsior Bldg., Toronto, Ont., mine bldg., ball mill. $40,000.

Que., St. Laurent (Postal Dist. Montreal)—PLANT—Temco Electric Mfg. Co., Ltd., 4800 Lagauchitiere St., Montreal, plans by L. N. Booth, 358 Caryle Ave., Mount Royal, plant addn.

Sask., Redberry—GRAIN ELEVATOR—Reliance Grain Co., Ltd., 919 Grain Exchange Bldg., Winnipeg, Man., grain elevator. $40,000.

BIDS ASKED

Bids Asked November 18

Wis., Sparta — PLANT — Sparta Co-Operative Assn., Sparta, 1 and 2 story, 88x175 ft. and 18x70 ft., brick dehydrating plant, concrete fdn. $135,000. Klinger & Hubbard, 218 S. Barstow St., Eau Claire, archts.

Bids Asked

Ark., Blytheville—PLANT—R. E. Lee Wilson Co. Estate, c/o J. H. Crain, administrator, Blytheville, vegetable dehydrating plant, Blytheville area. $250,000.

Conn., Bridgeport—FACTORY—Remington Arms Co., Inc., Harnum Ave., (selected bidders) 1 story, 110x110 ft., brick factory Bldg. Rd., factory alterations, to H. F. Juergens Co., 15430 Edgewater Dr., Lakewood. Est. **$100,000.** CD 10/28—ENR 11/5.

Pa., Josephtown (mail Monaca)—STORAGE—St. Joseph Lead Co. of Pittsburgh, E. Hallbrook, purch. agt., Josephtown, 1 story, 60x240 ft., tile storage bldg. Owner builds.

R. I., Pawtucket—PLANT—Joy Chemical Co., 133 Webster St., altering 2 story, 35x35 ft. and 40x45 ft., brick addns., to Elmer Thurber, Cottage St. R. C. Niebuhr, 10 Belmont St., archt.

Tenn., Memphis—DEPOT—Illinois Central System, C. H. Mottier, ch. engr., 135 E. 11 Pl., Chicago, Ill., razing old Poplar St. Depot, constructing new bldg., to Lankey Lumber & Wrecking Co., 659 Scott St. Est. approx. **$200,000.**

Tex., Sweeney—PLANT—J. S. Abercrombie Co., Gulf Bldg., Houston, several miscellaneous types bldgs., to Benson-Marxen Co., 2006 W. Alabama Ave., Houston, **$100,000.** CD 10/19—ENR 10/22.

★**Wisconsin**—PLANT—Industrial Company, 1 story, 297x382 ft. bldg., to Hunzinger Constr. Co., Sta. K, Milwaukee. Est. **$500,000.** CD 10/28—ENR 11/5.

Wis., Kenosha — PLANT — Peacock Corp., Berryville Rd., 1 story, 70x200 ft., brick dehydrating plant, concrete fdn., to L. Klemm, 7203 22 Ave.

Wis., Racine—SHOP—Belle City Mfg. Co., 1717 Taylor Ave., 1 story, 45x100 ft., reclaimed brick blacksmith shop addn., concrete fdn., to Nelson & Co., Inc., 1550 Yont St. E. A. Klinger, 612 14 Ave., archt.

Wis., Marshfield — WAREHOUSE — Blum Bros. Box Factory, 137 W. 9 St., 2 story, 51x89 ft., brick warehouse, concrete fdn., to W. Merkel, 709 W. Dolge St. CD 10/13—ENR 10/15.

Wis., Milwaukee—MACHINE SHOP, etc.—Air Reduction Co., Inc., 3435 N. Buffum St., construction and electrical contracts 1 story, part bsmnt., 30x69 ft. machine shop-storage bldg., to F. H. McGraw & Co., 780 Windsor St., Hartford, Conn.

Wis., West Milwaukee (mail Milwaukee)—MAINTENANCE—Chain Belt Co., 1600 W. Bruce St., Milwaukee, 2 story, 61x145 ft. concrete, brick maintenance bldg., to Klug & Smith Co., 111 E. Wisconsin Ave., Milwaukee. Eschweiler & Eschweiler, 720 E. Mason St., Milwaukee, archts.

Wis., Wisconsin Rapids — WAREHOUSE — Sampson Canning Co., 1251 1 St. N., 1 story, 34x124 ft., concrete warehouse, concrete fdn., day labor. L. A. DeGuere, Mead-Witter Bldg., engr.

British Columbia—FLOTATION PLANT—Jason Mines, Ltd., 67 Yonge St., Toronto, Ont., concentration-flotation plant, Mount Sicar, Vancouver Island, day labor under supervision W. J. Asselstine, Victoria. J. H. Colville, c/o owner, engr.

Man., Winnipeg—PLANT—Burns & Co., Ltd., Logan Ave. N., 1 story, bsmnt., 23x48x 90 ft. concrete plant addn., to Beaver Constr. Co., Ltd., 1075 Arlington St., about **$16,800.** CD 11/2.

Ont., Belleville—PLANT—Allied War Supplies Corp., Ltd., 1235 McGill College Ave., Montreal, Que., plant, to J. W. Ross, 1010 Ste. Catherine St. W., Montreal, Que. Est. **$300,000.**

Ont., Blenheim—PLANT—Warwick Seed Co., Ltd., Blenheim, corn drier and elevator, brick, concrete, to T. C. Warwick & Sons, Ltd., Chatham, **$50,000.**

Ont., Calabogie—MINE—Frobisher Exploration Co., Ltd., 25 W. King St., Toronto, mine bldgs., compressor house, hoist house, mill, etc., day labor.

Ont., Kingsville — WAREHOUSE — Likins Storage & Tobacco Co., Ltd., Kingsville, storage warehouse, to Clyde Vanzant, Erie St., over **$40,000.**

Ont., Leaside (Toronto)—PLANT—Metals & Alloys, Ltd., 1 Wiltshire Ave., plant, Wickstead Ave., to Dickie Constr. Co., Ltd., 17 Yorkville Ave., Toronto, about **$100,000.** Govan, Ferguson & Lindsay, 515 Jarvis St., Toronto, archts.

Ont., Toronto—PLANT—Canadian Industries, Ltd., Paint & Varnish Div., foot of Laughton St., altering 2 story, bsmnt., 24x82 ft. brick plant addn., to Mollenhauer Contg. Co., Ltd., 188 Perth Ave., about **$59,000.** CD 10/21—ENR 10/29.

Ont., Toronto—DEPOT—The Barrett Co., Ltd., 14 Keating St., oil storage depot, to H. A. Wickett Co., Ltd., 156 E. Front St. Est. **$40,000.**

Que., Debeaujeu—MILL—Societe Co-operative des Producteurs de Lin Vandreuil Soulauges, 2 story, 110x150 ft. flax factory, reincon., brick, to J. L. Guay et Freres, Ltd., 437 Guy St., Montreal, about **$50,000.** CD 11/4.

Que., Montreal—PLANT—Noorduyn Aviation Ltd., 2075 Haig St., 40x112 ft. wood storage bldg., boiler room exten., 300,000 gal. concrete water storage tank, imprvs., to Richard & E. J. Ryan, Ltd., 1808 William St., approx. **$300,000.** H. R. Wiggs, 1221 Osborne St., archt. G. L. Wiggs, 660 St. Catherine Sa. W., engr.

OFFICIAL PROPOSALS

Official notices of bids wanted on construction and related work, equipment and material for government, state, municipal departments and private enterprises

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Bids: November 19 (59)

Defense Housing Project

NYS—PROJECT NO. 14
MUNICIPAL HOUSING AUTHORITY OF THE CITY OF SCHENECTADY, NEW YORK

Sealed bids for furnishing all labor and materials and performing all work for the construction of Defense Housing Project NYS-14 including complete General, Heating, Plumbing and Electric work, but excepting Lawns and Planting, will be received by THE MUNICIPAL HOUSING AUTHORITY OF THE CITY OF SCHENECTADY, N. Y., at the office of THE AUTHORITY, 402 Millard St., Schenectady, N. Y., until 7 o'clock P. M., November 19, 1942, and then at said AUTHORITY office, publicly opened and read aloud.

The Information for Bidders, Form of Bid, Form of Contract, Plans, Specifications, and Forms of Bid Bond and Performance Bond may be examined at said office and copies thereof obtained upon payment of $25.00 for each set. Any bidder, upon returning such set promptly and in good condition will be refunded his payment, and any non-bidder upon so returning such set will be refunded $15.00.

THE MUNICIPAL HOUSING AUTHORITY OF THE CITY OF SCHENECTADY reserves the right to waive any informalities in or to reject any or all bids.

Each bidder must deposit with his bid security in an amount of not less than five per centum (5%) of the base bid in the form and subject to the conditions provided in the Information for Bidders.

Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under the contract.

No bidder may withdraw his bid within fifteen days after the actual date of the opening thereof.

THE AUTHORITY has obtained a preference rating of AA-4 for the project.

Frank Stein,
Chairman.
John MacGathan,
Executive Director.

Bids: November 16 (62)

Rental of Equipment

Sealed proposals for rental of the following equipment for a period not exceeding three months will be received by the Town Council at the Council Chambers, Municipal Building, Bloomfield, New Jersey, at 8:00 P. M., November 16, 1942, and publicly opened and read.

Specifications and conditions governing the equipment, rental and bidding are on file in the office of the Town Engineer.

Equipment

2—3½ ton dump trucks
1—30 ton crane (1 yd. bucket)
1—5 ton tractor (Bulldozer)
1—360 cu. ft. compressor

Bids on each item will be considered independently of other items and subject to all terms and conditions in the said specifications. The Town Council reserves the right to reject any and all bids.

By order of the Town Council.

J. Cory Johnson
Town Clerk

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Departmental Staff
McGRAW-HILL PUBLISHING CO., INC.
New York, N. Y.

Bids: November 16, (63)

Collection and Disposal of Waste

Sealed proposals for the collection and disposal of all ashes, garbage, refuse etc. in the Town of Bloomfield and the removal of same in accordance with contract and specifications on file in the office of the Town Clerk will be received by the Town Council in the Council Chambers of the Municipal Building of the Town of Bloomfield at 8:00 P. M., November 16, 1942, and publicly opened and read.

Complete specifications for said service are on file in the office of the Town Clerk in the Municipal Building and may be examined at said office.

All bids shall be submitted on bidding sheets which will be furnished by the Town Clerk and may be obtained at his office; bids not submitted on such forms will be rejected.

Each bidder is required to furnish with his bid a certified check in the sum of Ten Thousand Dollars ($10,000.00) to insure the execution of the contract and furnishing of a performance bond in case of award.

The Council reserves the right to delay the rejection of bids or award of the contract for a period not exceeding six weeks from receipt of bids or such further time as may be reasonable.

The Town reserves the right to select any one of the Plans of collection and disregard the remainder.

Bids must be made on forms furnished by the Town Clerk and be enclosed in a sealed specially addressed envelope bearing the name and address of the bidder and endorsed "Proposal for disposing of all ashes, garbage and refuse" and addressed to the Mayor and Council. Bids which are not enclosed in specially addressed envelopes will not be opened. Envelopes may be obtained from the Town Clerk.

The Council reserves the right to reject any or all bids if deemed to the best interest of the Town so to do.

By Order of the Town Council,
J. Cory Johnson
Town Clerk

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